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Platelet Derived Growth Factor-D; PDGF-D; human; cytostatic; vulnerary; VEGF-G; Vascular Endothelial Growth Factor; antiatherosclerotic; tumour; poliferative; activator; proliferation; differentiation; motility; growth; PDGF-D receptor; antagonist; tissue remodelling; treat; atherosclerosis; wound; metastasis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human Platelet Derived Growth Factor (PDGF)-D encoding partial cDNA #2.
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1. .969
/ tag= a
/ partial
/ product= "Human PDGF-D partial polypeptide #2"
/ note= "5' truncated platelet derived growth factor"
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ADK68127
AAS04498
AAS04492
ABN84524
ABN63515
ADK18626
ADMS7642
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ADG47745
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Ab58493 Human Sec
Ad585192 Cell prol
Ad620112 Human Sec
Ab58475 Human Sec
Ab58475 Human Sec
Ab58475 Human Rec
Ab58475 Human DPB
Ad25489 Human LPB
Ad25499 Human LPB
Ad25499 Human Sec
Ad23870 Human Sec
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Ad24013 Human FCT
Ab8651516 Human FCT
Ab8651516 Human FCT
Ab865111 Novel NOV
Adk68111 Novel NOV
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Match
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Alitalo K;

Uutela M,

Lee X,

Ponten A,

Briksson U, Aase K, Oestman A, Heldin C; WPI; 2000-376495/32.

ADK68131 ADK68125

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Score

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Result

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Mon Nov

P-PSDB; AAY71129 

Novel polynucleotides encoding a novel growth factor of cells expressing a platelet-derived growth factor, useful for diagnostic and therapeutic applications, e.g. concerning cancer.

Claim 1; Fig 5; 111pp; English

The present sequence is the 5' truncated partial CDNA #2, encoding human platelet derived growth factor (PDGF)-D, formally known as Vascular Endothelial Growth Factor (VEGF)-G. It is derived from human foctal lung lambdagtio cDNA library. It belongs to the VEGF/PDGF family. It functions as an activator of proliferation, differentiation, growth and motility of cells, that express PDGF-D receptor. This sequence is useful for inhibiting the growth of tumours, that express PDGF-D. Expression of PDGF form is useful for regulating receptor binding specificity of PDGF-D. DGF-D antagonist is useful for inhibiting tissue remodelling during the invasion of tumour cells into normal cells. PDGF-D may be used to treat wounds, atherosclerosis, metastasis and migration of smooth muscle cells

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Best Local Similarity 100.0%; Pred. No. 0;
Matches 1934; Conservative 0; Mismatches 61 61 181 241 121 181 241 301 301 361 361 421 421 481 481 541 541 601 601

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                                                                                                                                                                                                                             Platelet Derived Growth Factor-D; PDGF-D; human; cytostatic; vulnerary; VBGF-G; Vascular Endothelial Growth Factor; antiatherosclerotic; tumour; proliferative; activator; proliferation; differentiation; motility; growth; PDGF-D receptor; antagoniat; tissue remodelling; treat; atherosclerosis; wound; metastasis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel polynucleotides encoding a novel growth factor of cells expressing a platelet-derived growth factor, useful for diagnostic and therapeutic applications, e.g. concerning cancer.
        CTCCACAAAAGCAAATCCTTTCAAGAATGGCATGGGCATTCTGTATGAACCTTTCCAGAT
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/note= "Platelet derived growth factor"
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for regulating receptor binding specificity of PDGF-D. PDGF-D antagonist is useful for inhibiting tissue remodelling during the invasion of tumous cells into normal cells. PDGF-D may be used to treat wounds, atherosclerosis, metastasis and migration of smooth muscle cells
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ABQ80246 standard; cDNA; 2253 BP.
ABQ80246;
27-JUN-2003 (first entry)
PDGF-D cDNA.
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Gene; nervous system; platelet-derived growth factor; PDGF; psychosis; vascular endothelial growth factor; VRGF; neural; stem cell; memory; progenitor cell; neurodegeneration; ischaemia; neurological trauma; neuropsychiatry; learning; Parkinson's disease; Huntington's disease; Amyotrophic Lateral Sclerosis; spinal ischaemia; ischaemic stroke; spinal oord injury; cancer-related; schizophrenia; Alzheimer's disease; depression; anxiety; phobia; stress; cognitive function; aggression; drug; alcohol; abuse; obsessive compulsive behaviour; proliferation; seasonal mood disorder; personalty disorder; cerebral palsy; multi-infarct; demential Lewy body; age related; geriatric; growth; epilepsy; brain injury; multiple sclerosis; autism; differentiation; attention deficit disorder; narcolepsy; ss.

Homo sapiens.

cey Location/Qualifiers
.176. .1288
/\*tag= a
/product= "PDGF-D"

WO2003024478-A1.

27-MAR-2003.

19-SEP-2002; 2002WO-IB003998.

19-SEP-2001; 2001US-0323381P. 28-SEP-2001; 2001US-0326044P.

(NEUR-) NEURONOVA AB.

Delfani K, Janson AM, Kuhn GH, Plate K, Schanzer A, Wachs F Zhao M;

WPI; 2003-354563/33. P-PSDB; ABB80134. Use of platelet-derived growth factor, vascular endothelial growth factor, or their modulators for modulating neural stem cell or neural progenitor cell activity, particularly for treating e.g. Alzheimer's, ischemia or stroke.

Claim 97; Page 22-23; 119pp; English.

The sequences given in ABQ80243-47 encode proteins which may be used in the method of the invention for alleviating or reducing a symptom of a disease or discorder of the nervous system. The method comprises deministering platelet-derived growth factor (VEGF), a combination of PDGF and VEGF, or a PDGF or VEGF growth factor (VEGF), a combination of PDGF and VEGF, or a PDGF or VEGF or apatient in order to modulate neural stem cell or neural progenitor cell activity in vivo. The method is useful for alleviating or reducing the symptoms of a disease or disorder of the nervous system, or a comparable of disorders, neural stem cell disorders, neural progenitor disorders, ischaemic disorders neurological traumas, affective disorders, neuropsychiatric disorders or learning and memory affective disorders, neuropsychiatric disorders or learning and memory creating Parkinson's disease and disorders, Huntington's disease, Amyotrophic Lateral Sclerosis, spinal ischaemia, ischaemic stroke, spinal cord injury or cancer-related brain's spinal cord disorder, brain's seasonal mood disorder, multi-infarct dementia, Lew body dementia

us-10-086-623-5.rng

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dementia, epilepsy and injury related to epilepsy, spinal cord injury, brain injury, trauma related brain/spinal cord injury, anti-cancer treatment related brain/spinal cord tissue injury, infection and inflammation related brain/spinal cord injury, environmental toxin related brain/spinal cord injury, multiple sclerosis, autism, attention deficit disorders, narcolepsy or sleep disorders. The PDGF and/or VEGF, is useful in the manufacture of a medicament for alleviating or treating these diseases or disorders, accelerating growth of neural stem cells or neural progenitor cells, or inducing proliferation or differentiation of these cells
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Secreted protein; immunosuppressive; antiarthritic; antirheumatic; antipholiferative; cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective; antibacterial; virucide; fungicide; human; opthalmalogical; gene therapy; ss.
                                                                                                      Human secreted protein encoding cDNA (clone Id HE8TY90).
                                                                                                                                                                                                                                                                                  Rosen CA, Komatsoulis GA, Baker KP, Birse CE, Olsen HS, Moore PA, Wei P, Ebner R, Duan DR, Fiscella M, Ni J, Ruben SM, Barash SC;
                                                   AAH46957 standard; cDNA; 4001 BP
2240 GTAACTGGAAACCG 2253
                                                                                                                                                                                                                                31-JAN-2000; 2000US-0179065P.
04-FEB-2000; 2000US-0180628P.
12-SEP-2000; 2000US-0231968P.
                                                                                                                                                                                                                 17-JAN-2001; 2001WO-US001431
                                                                                                                                                                                                                                                                  (HUMA-) HUMAN GENOME SCI INC
                                                                                      (first entry)
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                                                                                                                                                                 Homo sapiens
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                                                                     AAH46957;
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17 isolated nucleic acid molecules encoding human secreted proteins, used to preventing, treating or ameliorating a medical condition.

Soppet DR; Shi Y, Choi GH;

Claim 1; Page 430-432; 482pp; English.

The invention provides novel human secreted proteins and polynucleotides encoding them. The secreted proteins can be expressed by standard encoding them. The secreted proteins and polynucleotides are ercombinant methodology. The secreted proteins and polynucleotides are used to prevent, treat or ameliorate a medical condition in e.g. humans, also be used in diagnostic andition. The antibodies to the proteins can also be used in alleviating symptoms associated with the disorders and in diagnostic immunoassays e.g. radioimmunoassays or enzyme the proteins can also be used in alleviating symptoms associated with the disorders and in diagnostic immunoassays e.g. radioimmunoassays or enzyme treated immunoasorbent assays (EDISA). Disorders which are diagnosed or treated immunoasorbent assays (EDISA). Disorders which are diagnosed or treated include autoimmune diseases e.g. rheumatoid arthritis.

Cardiovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. corneal infection. The polypeptides can also be used at disorders e.g. corneal infection. The polypeptides can also be used as a food additive or chemotaxis. The polypeptides can also be used as a food additive or preservative to increase or decrease storage capabilities. The present corporation encoding cDNA

Sequence 4001 BP; 1218 A; 823 C; 796 G; 1156 T; 0 U; 8 Other;

1; Gaps Query Match

98.9%; Score 1913.6; DB 5; Length 4001;
Best Local Similarity 99.4%; Pred. No. 0;
Matches 1923; Conservative 7; Mismatches 1; Indels 3;

ò 4	1 TTGTACCGAAGAGATGAGACCATCCAGGTGAAAGGAAACGGCTACGTGCAGAGTCCTAGA 60
3 8	or reconstructions and the contraction of the contr
Š	61 TTCCCGAACAGCTACCCCAGGAACCTGCTCCTGACATGGCGGCTTCACTCTCAGGAGAAT 120
QΩ	7 Trecegaacageraceceaggaacergerecreacarggeggegerrererekagaar
λŏ	1 ACACGGATACAGCTAGTGTTTGACAATCAGTTTGGATTAGAGGAAGCAGAAAATGATATC
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λ̈́	181 IGTAGGTATGATTTTGTGGAAGTTGAAGATATATCCGAAACCAGTACCATTATTAGAGGA 240
QQ	687 TGTAGGTATGATTTTGTGGAAGTTGAAGATATATCCGAAACCAGTACCATTATTAGAGGA 746
δλ	241 CGATGGTGTGGACACAAGGAAGTTCCTCCAAGGATAAAATCAAGAACGAAC
qq	747 CGATGGTGTGGACACAAGGAAGTTCCTCCCAAGGATAAAATCCAAGAACGAAC
ζ	01 ATCACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGATTTATTATTCT
qu	807 ATCACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGATTTATTATTCT 866
δλ	361 TIGCIGGAAGATITCCAACCCGCAGCAGCTTCAGAGACCAACTGGGAATCTGTCACAAGC 420
qq	867 TIGCIGGAAGATITCCAACCCGCAGCGCTTCAGAGACCAACTGGGAATCTGTCACAAGC 926
ò	TCTAITTCAGGGGTAICCTAIAACTCTCCATCAGGATCCCACTCTGATTGCGGAT
q	927 TCTATTTCAGGGSTATCCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGAT 986
ζ	481 GCTCTGGACAAAAAATTGCAGAATTTGATACAGTGGAAGATCTGCTCAAGTACTTCAAT 540
qq	7 GCTCTGGACAAAAAATTGCAKAATTTGATACAGTGGAAGATCTGCTCAAGTACTTCAAT
δλ	1 CCAGAGTCATGGCAAGAACATCTTGAGAATATGTATCTGGACACCCCTCGGTATCGAGGC
qa	1047 CCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGACACCCCTCGGTATCGAGGC 1106
Qy	AGGICATACCATGACCGGAAGTCAAAAGTTGACCTGGATAGGCTCAATGATGATGCCAAG
qq	7 AGGTCATACCATGACCGGAAGTCAAAAGTTGACCTGGATAGGCTCAATGATGATGCCAAG
ò	CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGGCTGAAGTTGGCC
οp	GGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAAGAGCTGAAGTTGGCC
ζ	AATGIGGTCTTTTCCACGTTGCCTCCTCGTGCAGCGCTGTGGAAATTGTGGCTGT
QQ	7 AATGEGETCTTCTTTCCACGTTGCCTCTCGTGCAGCGCTGTGGAGGAAATTGTGGCTGT
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qq	7 GGAACTGTCAACTGGAGGTCCTGCACATGCAATTCAGGGAAAACCGTGAAAAAGTATCAT
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δ	21 GGGTGAGATAAGAGCCCTTTTCCTACCAGCAAACTTACTACTAGCTGCAATGCA 108
qq	7 GGGTGAGATAAGAGACCCTTTTCCTACCAGCAACCTAACTTACTACTAGCCTGCAATGCA 158
δλ	1 ATGAACACAAGTGGTTGCTGAGTCTCAGCCTTGCTTAATGCCATGGCAAGTAGAAA 114

respiratory disorder; endocrine disorder; reproductive disorder; gene; gastrointestinal disorder; infectious disease; antiansemic; cytostatic; antiarthritic; immunosuppressive; antiasthmatic; antidiabetic; antiarthritinflammatory; antipsoriatic; antipparkinsonian; neuroprotective.

31-JAN-2000; 2000US-0179065P. 04-FEB-2000; 2000US-0180628P. 12-SEP-2000; 2000US-0231968P. 17-JAN-2001; 2001WO-US001431

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ROSEN C A.
KOMATSOULIS G A.
BAKER K P.
BIRSE C E.
SOPPET D R.
OLSEN H S.
MOORE P A.
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NI J. RUBEN S M. BARASH S C.

(CHOI/) (FISC/) (NIJJ/) (RUBE/) (BARA/)

27-JUL-2001; 2001US-00915582

US2002120103-A1. Homo sapiens

29-AUG-2002.

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The invention relates to an isolated nucleic acid molecule which encodes a human secreted protein. The sequences are useful for diagnosing or diagnosing a susceptibility to a pathological condition in a subject comprising determining the presence or absence of a mutation in the DNA or expression of the protein. The sequences are useful for identifying a comprising partner to the protein comprising contexting the protein with a condition partner of the protein sequences are used for identifying a civity. The DNA and protein sequences are used for preventing, treating cortain into a medical condition such as an autoimmune disease (e.g. miltiple sclerosis, myasthenia gravis), blood coagulation disorders (e.g. aftbringeneamia, haemophilia, blood platelet disorders (e.g. artcoidosis, Sezary syndrome), neurodegenerative disorders (e.g. Alzheimer's disease, thromboosis, realiousecular disorders (e.g. renal vein thromboosis, kidney infarction), cardiovascular disorders (e.g. renal vein thromboosis, kidney disorders (e.g. tonsilitis, laryngitis), andocrine disorders (e.g. cardiac arrest, carcingla), agstrointisis, laryngitis), andocrine disorders (e.g. anorches, carcomegaly, thyrocoxicosis), reproductive disorders (e.g. goatroenteritis, pyloric stenosis), infectious diseases (e.g. polio, rubella) and cancer. £ New secreted polypeptides and encoding polynucleotides, useful for preventing, treating and diagnosing diseases e.g. anemia, cancer, diabetes, asthma, psoriasis, Parkinson's and Alzheimer's. Soppet DR; Shi Y, Choi 9,6 Komatsoulis GA, Baker KP, Birse Moore PA, Wei P, Ebner R, Duan , Ni J, Ruben SM, Barash SC; Claim 1; Page 373-375; 238pp; English 2002-608160/65. P-PSDB; ABG76593. Fiscella M, Rosen CA, Olsen HS, 

Other; u; G; 1156 T; 0 Sequence 4001 BP; 1218 A; 823 C; 796

Human; secreted protein; autoimmune disease; blood coagulation disorder; blood platelet disorder; hyperproliferative disorder; renal disorder; ss; neurodegenerative disorder; cardiovascular disorder; vascular disorder;

Human secreted protein encoding cDNA #25

(first entry)

05-NOV-2002 ABS58493;

BP

ABS58493 standard; cDNA; 4001

secreted proteins of the invention

Db 1527 GGGTGAGATGACCTTTTCCTACCAGCAACCTACTACTACTAGCCTGCAATGCA 1586 Oy 1081 ATGAACACAAGTGGTTGCTGAGCCTTGCTTGTTAATGCCATGGCAAGTAGAAA 1140	1587 ATGAACACAAGTGGTTGCTGAGTCTCAGCCTTGCTTTGTTAATGCCATGGCAAGTAGAAA	1141	Qy 1201 GTTATATATGCACAAACACACAGAAATATATTCATGTGTATGTGTATATAGAAT 1260  Db 1707 GTTATATATGCACAAACACACAGAAATATATTCATGTCTATGTGTATATATA	Qy 1261 GTTTTTTGGTATATAACCAGGTACACCAGAGCTTACATATGTTTGAGTTAGACTCT 1320	QY 1321 TARARTCTTTGCCARARTARGGGATGGTCARATATGARACATGTCTTTGGARAATTT 1380	QY 1381 AGGAGATAATTTTTTAAATTTTGAAACACAAAACAATTTGAATCTTGCTCTTA 1440  Db 1887 AGGAGATAAATTTTTAAATTTTGAAACACRAAACAATTTTGAAICTTGCTCTTA 1946	Qy 1441 AAGAAAGCATCTTGTATATTAAAAATCAAAAGATGAGGCTTTCTTACATATACATCTAG 1500  Db 1947 AAGAAAGCATCTTGTATATTAAAAATCAAAAGGTGGGCTTTCTTACATATACATCTTAG 2006	Qy 1501 TTGATTATTAAAAAGGAAAAAGGTTTCCAGAGAAAAGGCCAATACCTAAGGATTTT 1557	Qy 1558 TTCCATGAGAAGCACTGCATACTTACCTATGTGGACTGTAATAACCTGTCTCCAAAACCA 1617	Qy 1618 TGCCATAATAATATAGGCTTTAGAAATTAAATCATTGTGTTTTTATGCATTTTGCTG 1677	Qy 1678 AGGCATCCTTATTCATTTAACACCTATCTCAAAAACTTACTT	Qy 1738 GTCCTACAAAGACAATGTATAAGCTGTAACAGAATTTTGAATTGTTTTTTTT	Qy 1798 CCCTCCACAAAAGCAAATCCTTTCAAGAATGGCATGGGCATTCTGTATGAACCTTTCCA 1857	OY 1858 GAIGGIGITCAGTGAAAGAIGIGGGTAGITGAGAACTTAAAAAGTGAACAITGAAACAIC 1917	Oy 1918 GACGTAACTGGAAA 1931 	RESULT 6 ADG65192 ID ADG65192 standard, DNA, 3739 BP.	XX AC ADG65192; XX	XX DB Cell proliferation factor Fwa267 encoding sequence.
Similarity 99.4%; Pred. No. 0; 3; Conservative 7; Mismatches 1; Indels 3; Gaps	1 TIGIACCGAGAGATCAGACCATCCAGGAAAGGAAAAGGCTACGTGCAGAGTCCTAGA 60 	61 ITCCCGAACAGCTACCCCAGGAACCTGCTCCTGACATGGCGGCTTCACTCTCAGGAGAAT 120 				ATTCT       ATTCT	361 TTGCTGGAAGATTTCCAACCCGGAGCAGTTCAGAGACCAACTGGGAATCTGTCACAAGC 420 	CGGAT 		CCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGAACACCCCTCGGTATCGAGGC		661 GGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCC 720 	3CTGT 	ATCAT	1 GAGGTATTACAGTTTGAGCCTGGCCACATCAAGAGGAGGGTAGAGCTAAGACCATGGCT	901 CTAGTTGACATCCAGTTGGATCACCATGAACGATTGTATCTGCAGCTCAAGACCA 960 	961 CCTCGATAAGAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAGGA 1020 	1021 GGGTGAGATAAGAGACCCTTTTCCTACCAGCAACCAAACTTACTAGTAGTGCAATGCA 1080

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1871 TGCCATAATATATATAGTGCTTTAGAAATTAAATCATTGTGTTTTTTATGCATTTTGCTG
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                                                                                                                                          systemic lupus erythematosus; rheumatoid arthritis; osteoarthritis; juvenile chronic arthritis; systemic solerosis; Sjogren's syndrome; vasculitis; sarcoidosis; autoimmune haemolytic anaemia; autoimmune thrombocytopenia; thyroiditis; diabetes mellitus; renal disease; demyelinating disease; central nervous system; peripheral nervous system; demyelinating polyneuropathy;
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the polynucleotides are useful for
                                                      immune
                                                                    related disorders include systemic lupus erythematosus, rheumatoid arthritis, osteoarthritis, juvenile chronic arthritis, systemic sclerosis, Sjogren's syndrome, vasculitis, sarcoidosis, autoimmune haemolytic anaemia, autoimmune thrombocytopenia, thyroiditis, diabetes mellitus, immune-mediated renal disease, demyelinating diseases of the central or peripheral nervous system, demyelinating polyneuropathy, Guillain-Barre syndrome and chronic inflammatory demyelinating
                                                                                                                                                                                                                                                        ğ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCCCGAACAGCTACCCCAGGAACCTGCTCTGACATGGCGGCCTTCACTCTCAGGAGAAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                              polyneuropathy. This sequence represents a human PRO polynucleotide the invention.
                       encoding them. The polypeptides and polynucleotides are useful fo
treating and diagnosing immune related disorders in mammals. The
                                                                                                                                                                                                                                                                                                                                                                                DB 12; Length 3808;
                                                                                                                                                                                                                                                                                                                               Sequence 3808 BP, 1191 A, 750 C, 738 G, 1129 T, 0 U, 0 Other;
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  polypeptides and
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                                                                                                                                                                                                                                                                                                                                                                           198.9%; Score 1913.2;
1larity 99.7%; Pred. No. 0;
Conservative 0; Mismatches
  invention relates to human PRO
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Matches 1928; Conser
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Query Match
Best Local Similarity
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                               CCTCGATAAGAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAGGA 1020
                                                                                                                CCTCGATAAGAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAGGA 1339
                                                                                                                                           GGGTGAGATAAGAGACCCTTTTCCTACCAGCAACCTAACTTACTAGCCTGCAATGCA 1080
                                                                                                                                                                                                                           GGTATATCATCAACTTCTATACCTAAGAATATAGGATTGCATTTAATAATAGTGTTTGAG 1200
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GGAACTGTCAACTGGAGGTCCTGCACATGCAATTCAGGGAAAACCGTGAAAAAGTATCAT 1159
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                                                                                                                                                     1580 GITTITITIGGIATATATAACCAGGIACACCAGAGCTTACATATGTTTGAGTTAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                           1381 AGGAGATAAATTTATTTTAAATTTTTGAAACACAAAACAATTTTGAATCTTGCTCTTA
                                                           CTAGTTGACATCCAGTTGGATCACCATGAACGATGCGATTGTATCTGCAGCTCAAGACCA
                                                                                                                                                                                                                                                                    GTTATATATGCACAAACACACACACAGAAATATATTCATGTCTATGTGTATATAGATCAAAT
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The invention provides novel human secreted proteins and polynucleotides cenceding them. The secreted proteins can be expressed by standard cenceding them. The secreted proteins and polynucleotides are recombinant methodology. The secreted proteins and polynucleotides are used to prevent, treat or ameliorate a medical condition in e.g. humans, cate, rabbits, goats, horses, cate, dogs, chickens or sheep. They can also be used in alleviating symptoms associated with the che proteins can also be used in alleviating symptoms associated with the disorders and in diagnostic immunoassays e.g. radioimmunoassays or enzyme clinked immunosorbent assays (ELISA). Disorders which are diagnosed or treated include autoimmune diseases e.g. rheumatoid arthritis, chyperproliferative disorders e.g. cardiac arrest, cerebrovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. corneal infections caused by bacteria, viruses and fungi and cused to aid wound healing and epithelial cell proliferation, to prevent supporting cell culture of primary tissues, to regenerate tissues and in chemotaxis. The polypeptides can also be used as a food additive or preservative to increase or decrease storage capabilities. The present con sequence represents a human secreted protein encoding cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 isolated nucleic acid molecules encoding human secreted proteins, used to preventing, treating or ameliorating a medical condition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Secreted protein; immunosuppressive; antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective; antibacterial; virucide; fungicide; human;
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Shi Y, Choi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3798 BP; 1189 A; 749 C; 737 G; 1123 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human secreted protein encoding cDNA (clone Id HGCNC48).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rosen CA, Komatsoulis GA, Baker KP, Birse CE, Olsen HS, Moore PA, Wei P, Ebner R, Duan DR, Fiscella M, Ni J, Ruben SM, Barash SC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 417-418; 482pp; English.
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                                                                                                                                                                                                                                                   AAH46939 standard; cDNA; 3798
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04-FEB-2000; 2000US-0180628P.
12-SEP-2000; 2000US-0231968P.
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2240 GACGTAACTGGAAA 2253
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                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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P-PSDB; AABB5529.
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31-JAN-2000;
                29-AUG-2002
                                               (FISC/)
(NIJJ/)
(RUBE/)
(BARA/)
                               (KOMA/)
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                             (ROSE/)
                                    (OLSE/)
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platelet disorder, hyperproliferative disorder; ss;
                                                  neurodegenerative disorder; cardiovascular disorder; vascular disorder; respiratory disorder; endocrine disorder; reproductive disorder; gene; gastrointestinal disorder; infectious disease; antianaemic; cytostatic; antiarthritic; immunosuppressive; antiasthmatic; antidiabetic; antiinflammatory; antipsoriatic; antiparkinsonian; neuroprotective.
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Homo sapiens

US2002120103-A1

27-JUL-2001; 2001US-00915582

2000US-0179065P

04-FEB-2000; 2000US-0180628P. 12-SEP-2000; 2000US-0231968P. 17-JAN-2001; 2001WO-US001431.

ROSEN C A.
KOMATSOULIS G A.
BAKER K P.
BIRSE C E.
SOPPET D R.

OLSEN H S. MOORE P A. WEI P. EBNER R. DUAN D R.

CHOI G H.

FISCELLA M NI J. RUBEN S M.

BARASH S C.

Soppet DR; Shi Y, Choi GH; Birse CE, Duan DR, Moore PA, Wei P, Ebner R, D Ni J, Ruben SM, Barash SC; Baker KP, Rosen CA, Komatsoulis GA, Olsen HS, Moore PA, Wei Fiscella M,

2002-608160/65 P-PSDB; ABG76575 New secreted polypeptides and encoding polynucleotides, useful for preventing, treating and diagnosing diseases e.g. anemia, cancer, diabetes, asthma, psoriasis, Parkinson's and Alzheimer's.

Claim 1; Page 357-359; 238pp; English

comprising a succepturinty to a participation in a budget comprising determining the presence or absence of a mutation in the DNA or expression of the protein. The sequences are useful for identifying a binding partner to the protein comprising contacting the protein with a condition partner to the protein comprising contacting the protein with a civily. The DNA and protein sequences are used for preventing, treating a cativity. The DNA and protein sequences are used for preventing, treating confiding in medical condition such as a autoimmune disease (e.g. multiple sclerosis, myssthenia gravis), blood coagulation disorders (e.g. afibrinogensemia, haemophilia), blood platelet disorders (e.g. thrombocytopenia), hyperproliferative disorders (e.g. sarcoidosis, Sezary syndrome), neurodegenerative disorders (e.g. Alzheimer's disease, kidney infarction), cardiovascular disorders (e.g. renal vein thrombosis, kidney infarction), vascular disorders (e.g. aneurysem, ischaemia), respiratory disorders (e.g. tonsilitis, laryngitis), endocrine disorders (e.g. acromegaly, thyrotoxicosis), reproductive disorders (e.g. polic, rubella) and cancer.

Sequences ABSS8469-ABSS8807 represent CDNA molecules encoding human secreted proteins of the invention The invention relates to an isolated nucleic acid molecule which encon a human secreted protein. The sequences are useful for diagnosing or diagnosing a susceptibility to a pathological condition in a subject

1329

1029 1089 1149 1209 840 780 900 960 120 429 180 489 300 609 360 699 420 729 480 789 540 849 9 9 1270 CCTCGATAAGAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAGGA TIGITACCGAAGAGATGAGACCATCCAGGTGAAAGGAAACGGCTACGTGCAGAGTCCTAGA TTCCCGAACAGCTACCCCAGGAACCTGCTCCTGACATGGCGGCTTCACTCTCAGGAGAAT CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAAGAGCTGAAGTTGGCC GGAACTGTCAACTGGAGGTCCTGCACATGCAATTCAGGGAAAACCGTGAAAAAGTATCAT GGAACTGTCAACTGGAGGTCCTGCACATGCAATTCAGGGAAAACCGTGAAAAAGTATCAT GAGGTATTACAGTTTGAGCCTGGCCACATCAAGAGGGGGGGTAGAGGCTAAGACCATGGCT CCTCGATAAGAAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAGGA 1 TIGTACCGAAGAGATGAGACCATCCAGGTGAAAGGAAACGGCTACGTGCAGAGTCCTAGA TTCCCGAACAGCTACCCCAGGAACCTGCTCCTGACATGGCGGCTTCACTCTCAGGAGAAT 121 ACACGGATACAGCTAGTGTTTGACAATCAGTTTGGATTAGAGGAAGCAGAAAATGATATC ACACGGATACAGCTAGTCTTTGACAATCAGTTTGGATTAGAGGAAGCAGAAAATGATATC ATCACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGATTTATTATTCT TTGCTGGAAGATTTCCAACCCGCAGCAGCTTCAGAGACCAACTGGGAATCTGTCACAAGC TIGCTGGAAGATTTCCAACCCGCAGCAGCTTCAGAGACCAACTGGGAATCTGTCAAGC TCTATTTCAGGGGTATCCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGAT GCTCTGGACAAAAATTGCAGAATTTGATACAGTGGAAGATCTGCTCAAGTACTTCAAT GCTCTGGACAAAAAATTGCAGAATTTGATACAGTGGAAGATCTGCTCAAGTACTACAAT CCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGACACCCCTCGGTATCGAGGC AGGTCATACCATGACCGGAAGTCAAAAGTTGACCTGGATAGGCTCAATGATGATGATGCCAAG AGGICATACCATGACCGGAAGICAAAAGITGACCTGGATAGGCTCAATGATGATGCCAAG CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCC AATGTGGTCTTCTTTCCACGTTGCCTCCTCGTGCAGCGCTGTGCAGGAAATTGTGGCTGT 1030 AATGTGGTCTTCCTTCCACGTTGCCTCCTGCAGCGCTGTGGAGGAAATTGTGCTGT GAGGTATTACAGTTTGAGCCTGGCCACATCAAGAGGAGGGGTAGAGCTAAGACCATGGCT TGTAGGTATGATTTTGTGGAAGTTGAAGATATATCCGAAACCAGTACCATTATTAGAGGA Length 3798 ë. Sequence 3798 BP; 1189 A; 749 C; 737 G; 1123 T; 0 U; 0 Other; Indels DB 6; 4, Score 1911.6; Pred. No. 0; 0; Mismatches 98.88; Best Local Similarity 99.6 Matches 1927; Conservative 1150 1210 430 550 301 670 730 850 910 970 1090 961 61 370 181 241 361 421 481 790 541 601 661 721 781 841 901 Query Match g 셤 셤 셤 8 ઠે g ð g ઠે g ò g ò d ઠે q ઠ 셤 δ 셤 ò 셤 ò ò ò 8 ઠે

Human LP85 DNA

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AAD25489 standard; DNA; 3718

(first entry)

26-MAR-2002

AAD25489

RESULT 10
AAD25489
ID AAD255
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AC AAD265
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The present invention relates to LPB5, an analogue of platelet-derived growth factor (PDGF) homologue. Sequences of the invention are useful for the manufacture of a medicament for treating musculoskeletal disorder (MSD) which include promoting bone growth, cartilage differentiation and function, wound healing, neuron growth, preventing cartilage degradation or neuronal degeneration. They are useful for treating bone fractures, osteopenia, arthritis, sarcopenia, periodontal disease, tissue atrophy, traumatised connective tissues, grafted connective tissues and/or transplanted organs, bone or muscle loss due to malignancy, endocrine disorders and immobility. They are also used for prophylactically increasing or maintaining bone density in a mammal. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Analog of a platelet-derived growth factor homolog, LPB5 useful for treating osteoporosis, arthritis, sarcopenia, wounds, has one or more amino acid substitutions which destroy the tripeptidyl sequence of native
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                                           LP85; platelet-derived growth factor; PDGF; antiinflammatory; vulnerary; osteopathic; neuroprotective; tranquilliser; musculoskeletal disorder; MSD; therapy; bone growth; cartilage differentiation; wound healing; neuron growth; bone fracture; osteoporosis; osteopenia; arthritis; sarcopenia; periodontal disease; tissue atrophy; endocrine disorder; muscle loss; immobility; bone density; ds.
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11-JAN-2001; 2001US-0261071P.
11-JAN-2001; 2001US-0261076P.
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Matches 1922; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to 1P85, an analogue of platelet-derived growth factor (PDGF) homologue. Sequences of the invention are useful for the manufacture of a medicament for treating musculoskeletal disorder (MSD) which include promoting bone growth, cartilage differentiation and function, wound healing, neuron growth, preventing cartilage degradation or neuronal degeneration. They are useful for treating bone fractures, osteoporosis, osteoponia, arthritis, sarcopenia, periodontal disease, tissues and/or transplanted organs, bone or muscle loss due to maliganacy, endocrine disorders and immobility. They are also used for prophylactically increasing or maintaining bone density in a mammal. The present sequence is a DNA encoding human LP85 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Analog of a platelet-derived growth factor homolog, LPB5 useful for treating osteoporosis, arthritis, sarcopenia, wounds, has one or more amino acid substitutions which destroy the tripeptidyl sequence of native
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The present invention relates to a vascular endothelial growth factor (VEGF) family member, VEGF-G. VEGF-G protein and nucleic acid molecules are used as medulating agents or as tragets for developing modulating agents to regulate a variety of cellular processes e.g. cell proliferation, differentiation, migration and wound repair. VEGF-G modulators, i.e. VEGF-G protein, peptide, peptidomimetic or nucleic acid are used to treat a subject with aberrant VEGF-G protein or nucleic acid expression or activity e.g. dergulated cell growth, such as cancer, hyperptrophic bone disorders, disorders involving aberrant angiogenesis e.g. psoriasis, and chronic inflammatory diseases e.g. rheumatoid arthritis. VEGF-G gene expression is inhibited through the administration of antisense molecules or ribozymes and by targeting the regulatory region of VEGF-G to prevent transcription of the gene in target cells
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                            AGGAGATAAATTTATTTTTAAATTTTTGAAACACAAAACAATTTTGAATCTTGCTCTCTTA 1697
                                                                                                                                                                                                                                                                                                                                                                                                                                            New vascular endothelial growth factor family member used for diagnosis and treatment of deregulated cell growth e.g. cancer, disorders involving aberrant angiogenesis e.g. psoriasis, and chronic inflammatory diseases.
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The invention relates to a novel method for detecting soft tissue sarcoma which comprises obtaining a first soft tissue sample from an individual determinal soft tissue sample from the same or different individual, determining the expression of a gene in both samples and comparing the expression of a gene in both soft tissue samples, where a higher level of protein expression in the first soft tissue sample indicates the presence of soft tissue sarcoma. The method of the invention has cytostatic applications and may be useful for detecting soft tissue sarcoma, possibly via gene therapy or vaccine production. The nucleic acid sequences may be useful in diagnostic and screening applications. The current sequence is that of a human soft tissue sarcoma-upregulated DNA of the invention The current sequence is not shown within the
                                                                                                                                                                                                                                                                                                                                               soft tissue sarcoma; cytostatic; gene therapy; vaccine; screening; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Early detection of soft tissue sarcoma comprises determining expression of a gene in a first soft tissue sample and a normal soft tissue sample and comparing the gene expression, also useful in treating soft tissue
2217 CAGATGGTGTTCAGTGAAAGATGTGGGTAGTTGAGAACTTAAAAAGTGAACATTGAAACA
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98.0%; Score 1896.2; DB 12; Length 4153;
Best Local Similarity 98.8%; Pred. No. 0;
Matches 1911; Conservative 0; Mismatches 20; Indels 3; C
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                                                                                                                                                                                                                                                                                                           - SEQ ID 6690
                                                                                                                                                                                                                                                                                                           tissue sarcoma-upregulated DNA
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                       GGAACTGTCAACTGGAAGGTCCTGCACACATGCAATTCAGGGAAAAACTGTGAAAAAGTATCAT
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1802 GITHTITIGGENEARCACACACACACACATATATICATGGTTATATAGGTTACACAT 1861   1862 GITHTITIGGTATATACCACACACACACACATACATATGTTACACACAC	RESULT 14 AD022990 standard; DNA; 4153 BP. XX AC AD022990; XX AC AD022990; XX XX BY XX BY XX ANG-2004 (first entry) XX KW Soft tissue sarcoma-upregulated DNA - SEQ ID 5810. XX
191 TGTAGGTATGATTTTGTGAAATCAGTTTGATTTGATTTG	901 CTAGTTGACATCCAGTTGAATCACCATGAACGATTGTATCTGCAGCTCAAGACCA 960 1502 CTAGTTGACATCCAGTTGGATCACCATGAACGATTGTATCTACTCTAGCTCAAGACCA 1561 1502 CTAGTTGACATCCAGTTGGATCACCATGAACGATTGTATCTAGTTTAAGGA 1020 1562 CCTCGATAAGAGAATGTGCACATCCTTACATTAAGCTCTAAGTTTAAGGA 1020 1021 GGGTGAATAAGAGAATGTGCACTCCTACATTAAGCTCTAAGTTTAAGGA 1621 1021 GGGTGAATAAGAGAATGTGCACTCCTACATACATTAACTATTAAGGA 1621 1031 ATGAACACAAGAGACCCTTTTCCTACACACAACTACTACTAGCCTGCAATGCA 1080 162 GGGTGAGATAAGAGACCCTTTTCCTACACACAACTTACTAACACTAGCCTGCAATGCA 1080 162 ATGAACACAAGTGGTTGCTGAGTCCCAGCCAACTAACTAA

LABS INC DESIGN PROTEIN (PROT-)

Zlotnik A; Ginsburg WM, Aziz N,

Early detection of soft tissue sarcoma comprises determining expression of a gene in a first soft tissue sample and a normal soft tissue sample and comparing the gene expression, also useful in treating soft tissue

Example 2; SEQ ID NO 5810; 210pp; English.

The invention relates to a novel method for detecting soft tissue sarcoma which comprises obtaining a first soft tissue sample from an individual and a normal soft tissue sample from the same or different individual, determining the expression of a gene in both samples and comparing the expression of the gene in both soft tissue samples, where a higher level of protein expression in the first soft tissue sample indicates the presence of soft tissue sarcoma. The method of the invention has cytostatic applications and may be useful for detecting soft tissue sarcoma, possibly via gene therapy or vaccine production. The nucleic said sequences may be useful in diagnostic and screening applications. The current sequence is that of a human soft tissue sarcoma-upregulated DNA of the invention. The current sequence is not shown within the specification per se but was submitted in CD format by the inventor.

Sequence 4153 BP; 1253 A; 855 C; 854 G; 1174 T; 0 U; 17 Other;

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1081 540 661 120 180 781 240 841 300 901 360 420 480 721 961 9 ACACGGATACAGCTAGTGTTTGACAATCAGTTTGGATTAGAGGAAGCAGAAATGATATC TTCCCGAACAGCTACCCCAGGAACCTGCTCCTGACATGGCGGCTTCACTCTCAGGAGAAT TCTATTTCAGGGGTATCCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGAT GCTCTGGACAAAAAATTGCAGAATTTGATACAGTGGAAGATCTGCTCAAGTACTTCAAT TTGTACCGAAGAGATGAGACCATCCAGGTGAAAGGAAACGGCTACGTGCAGAGTCCTAGA TTCCCGAACAGCTACCCCAGGAACTGCTCCTGACATGGCGGCTTCACTCTCTCAGGAGAAT ACACGCATACAGCTAGTGTTTGACAATCAGTTTGGATTAGAGGAAGCAGAAAATGATATC TGTAGGTATGATTTTGTGGAAGTTGAAGATATATCCGAAACCAGTACCATTATTAGAGGA TGTAGGTATGATTTTGTGGAAGTTGAAGATATATCCGAAACCAGTACCATTATTAGAGGA ATCACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGATTTATTATTCT ATCACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGATTTATTATTCT TTGCTGGAAGATTTCCAACCCGCAGCAGCTTCAGAGACCAACTGGGAATCTGTCACAAGC TCTATTTCAGGGGTATCCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGAT GCTCTGGACAAAAAATTGCAGAATTTGATACAGTGGAAGATCTGCTCAAGTACTTCAAT Gaps Length 4153; 3, 20; Indels DB 12; ; Score 1896.2; I ; Pred. No. 0; 0; Mismatches Query Match
Best Local Similarity 98.8%;
Matches 1911; Conservative ( Н 722 602 61 662 121 181 782 842 902 361 1022 1082 241 301 962 421 481

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1080 1140 1320 1261 1381 1441 1501 1561 1020 1621 1741 1861 1921 1981 1557 2161 1681 TAAAATCCTTTGCCAAAATAAGGGATGGTCAAATATATGAAACATGTCTTTAGAAAATTT 1380 AAGAAAGCATCTTGTATATTAAAAATCAAAAGATGAGGCTTTCTTACATATACATCTTAG, 1500 AAGAAAGCATCTTGTATATTAAAAATCAAAAGATGAGGCTTTCTTACATATACATCTTAG 2101 TGCCATAATAATAAAGTGCTTTAGAAATTAAATCATTGTGTTTTTTATGCATTTTGCTG 1677 840 900 960 CTAGTTGACATCCAGTTGGATCACCATGAACGATGTGATTGTATCTGCAGCTCAAGACCA ATGAACACAAGTGGTTGCTGAGTCTCAGCCTTTGTTAATGCCATGGCAAGTAGAAA GTTTTTTTGGTATATATAAACCAGGTACACAGAGCTTACATATGTTTGAGTTAGACTCT TTCCATGAGAAGCACTGCATACTTACCTATGTGGACTATAATAACCTGTCTCCAAAAACCA AGGTCATACCATGACCGGAAGTCAAAAGTTGACCTGGATAGGCTCAATGATGATGCCAAG CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCC GGGTGAGATAAGAGACCCTTTTCCTACCAGCAACCAAACTTACTACTAGCTGCAATGCA GGGTGAGATAAGAGACCCTTTTCCTACCAGCAACCTAACTTACTACTAGCTGCAATGCA ATGAACACAAGTGGTTGCTGAGTCTCAGCCTTGCTTTAATGCCATGGCAAGTAGAAA GGTATATCATCATCAACTTCTATACCTAAGAATATAGGATTGCATTTAATAATAGTGTTTTGAG GTTATATATATGCACAAAACACACACAGAAATATATTCATGTCTATGTGTATATAGATCAAAAT 1381 AGGAGATAAATTTTTTAAATTTTTGAAACACAAAACAATTTTGAATCTTGCTCTTA TTGATTATTAAAAAAGGAAAAATATGGTTTCCAGAGAAAAGGCCCAATACCTAAGCATTTT CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCC AATGTGGTCTTCTTTCCACGTTGCCTCCTCGTGCAGCGCTGTGGAGGAAATTGTGGCTGT AATGTGGTCTTCTTTCCACGTTGCCTCCTCGTGCAGCCTGTGGAGGAAATTGTGGCTGT GGAACTGTCAACTGGAGGTCCTGCACATGCAATTCAGGGAAAACCGTGAAAAAGTATCAT 1382 GGAACTGTCAACTGGAGGTCCTGCACATGCAATTCAGGGAAAACCGTGAAAAAGTATCAT GAGGTATTACAGTTTGAGCCTGGCCACATCAAGAGGAGGGGTAGAGCTAAGACCATGGCT 1442 GAGGTATTACAGTTTGAGCCTGGCCACATCAAGAGGAGGGGTAGAGCTAAGACCATGGCT CTAGTTGACATCCAGTTGGATCACCATGAACGATGCGATTGTATCTGCAGCTCAAGACCA CCTCGATAAGAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAGGA GGTATATCATCAACTTCTATACCTAAGAATATAGGATTGCATTTAATAATAGTGTTTGAG GTTATATATGCACAAAACACACACACAGAAATATTTCATGTCTATGTGTATATAGATCAAAT GTTTTTTTTGGTATATATAACCAGGTACACAGAGCTTACATATGTTTGAGTTAGACTCT TAAAATCCTTTGCCAAAATAAGGGATGGTCAAATATATGAAACATGTCTTTAGAAAATTT TTCCATGAGAAGCACTGCATACTTACCTATGTGGACTGTAATAACCTGTCTCCAAAACCA TTGATTATTAAAAAAGGAAAA---GGTTTCCAGAGAAAAGGCCAATACCTAAGCATTTT 601 1262 1322 1202 661 721 781 1502 1622 1081 1682 1742 1802 1321 2042 841 961 1562 1141 1201 1261 1862 1982 1441 2102 1558 2162 1618 901 1021 1922 1501 g g g qq d ò 셤 ò à ð à ð g ò g 8 g g g 셤 ò Š à 셤 à 원 ò ద ò g

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                                                                                                                                                                                          GATGGTGTTCAGTGAAAGATGTGGGTAGTTGAGAACTTAAAAAGTGAACATTGAAACATC 1917
                                                                                                                                                                                                        The invention relates to a novel method for detecting soft tissue sarcoma which comprises obtaining a first soft tissue sample from an individual and a normal soft tissue sample from the same or different individual, determining the expression of a gene in both samples and comparing the expression of the gene in both soft tissue samples, where a higher level of protein expression in the first soft tissue sample indicates the presence of soft tissue sarcoma. The method of the invention has cytostatic applications and may be useful for detecting soft tissue sarcoma, possibly via gene therapy or vaccine production. The nucleic acid sequences may be useful in diagnostic and screening applications. The current sequence is that of a human soft tissue sarcoma-upregulated DNA of the invention. The current sequence is not shown within the specification per se but was submitted in CD format by the inventor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            soft tissue sarcoma; cytostatic; gene therapy; vaccine; screening; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Early detection of soft tissue sarcoma comprises determining expression of a gene in a first soft tissue sample and a normal soft tissue sample and comparing the gene expression, also useful in treating soft tissue
                                                                              GTCCTACAAAAGACAATGTATAAAGCTGTAACAGAATTTTGAATTGTTTTTCTTTGCAAAA
                                                                                                                            CCCCTCCACAAAAGCAAATCCTTTCAAGAATGGCATGGGCCATTCTGTATGAACCTTTCCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human soft tissue sarcoma-upregulated DNA
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	081 ATGAACACAGGGTTGCTGAGTCTCAGCTTTGTTAATGCCATGGCAAGTAGAAA 114	1682 ATGAACACAAGTGGTTGCTGAGTCTCAGCCTTGCTTTGTTAATGCCATGGCAAGTAGAAA 1741	1141   GGTATATCATCAACTTCTATACCTAAGAATATAGGATTGCATTTAATAATAGTGTTTGAG   1200	126	1802 GTTATATATGCACAAACACACACACAGAAATATATTCATGTCTATGTGTATATAGAATGAAAT 1861	13	13	1321 TAAAATCCTTTGCCAAAATAAGGGATGGTCAAATATATGAAACATGTCTTTAGAAAATTT 1380	1922 TAAAATCCTTTGCCAAAATAAGGGATGGTCAAATATATGAAACATGTCTTTAGAAAATTT 1981	1381 AGGAGATAAATITATITITAAATITITGAAACACAATITITGAATCTITGCTCTCTTA 1440	1982 AGGAGATAAATTTTTTAAATTTTTGAAACAAAAAAAAATTTTGAATTTTGAATCTTGCTCTCTTA 2041	1441 AAGAAGCATCTTGTATATTAAAAATCAAAAGATGAGGCTTTCTTACATATACATCTTAG 1500	2042 AAGAAAGCATCTTGTATATTAAAAATCAAAAGATGAGGCTTTCTTACATATACATCTTAG 2101	1501 TIGATIATIAAAAAAGGAAAAAGGTTICCAGAGAAAAGGCCAATACCTAAGCATITI 1557	2102 TIGATTATTAAAAAGGAAAAATATGGTTTCCAGAGAAAAGGCCAATACCTAAGCATTTT 2161	1558 TTCCATGAGAAGCACTGCATACTTACCTATGTGGACTGTAATAACCTGTCTCCAAAACCA 1617	2162 TTCCATGAGAAGCACTGCATACTTACCTATGTGGACTATAATAACCTGTCTCCAAAACCA 2221	1618 IGCCATAATAATATAAGGCTTTAGAAATTAAAATCATTGTGTTTTTTAAGCATTTTGCTG 1677	CATAATAATATAAGTGCTTTAGAAATTAAATCATTGTGTTTTTTTATGCATTTTGCTG	1678 AGGCATCCTTATTCATTTAACACCTATCTCAAAAACTTACTT	2282 AGGCATGCTTATTCATTTAACACCTATCTCAAAAACTTACTT	1738 GTCCTACAAAAGACAATGTATAAGCTGTAACAGAATTTTTGAATTTGTTTTTCTTTGCAAAA 1797	2342 GICCTACAAAAGACAATGTATAAGCTGTAACAGAATTTTTGAATTGTTTTTCTTTGCAAAA 2401	1798 CCCTCCACAAAAGCAAATCCTTTCAAGAATGGCATGGGCATTCTGTATGAACCTTTCCA 1857	2402 CCCCTCCACAAAAGCAAATCCTTTCAAGAATGGCATGGGCATTCTGTATNNNNNNNNNN	1858 GATGGTGTTCAGTGAAAGATGTGGGTAGTTGAGAACTTAAAAAGTGAACATTGAAACATC 1917	2462 NNNNNNGTTCAGTGAAAGATGTGGGTAGTTGAGAACTTAAAAAAGTGAACATTGAAACATC 2521	1918 GACCTAACTGGAAA 1931	522 GACGTAACTGGAAA 253	ch completed: October 31, 2004, 05:21:50 time : 895 secs
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1742
1 LYRRDETIQVKGNGYVQSPR......DIQLDHHERCDCICSSRPPR
            GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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Novel Human Human

Adda 87317 N
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## ALIGNMENTS

2002273

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

2002273 segs, 358729299 residues

Title: Perfect score: Sequence:

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Scoring table:

Searched:

	RESULT 1 AAY71129 ID AAY71129 standard; peptide; 322 AA. XX	AC AAY71129; XX XX DT 08-SEP-2000 (first entry) XX XX NR Human platelet Derived Growth Ractor (PDGP)-D partial polymentide #2.	XX XX Flatelet Derived Growth Factor-D; PDGF-D; human; cytostatic; vulnerary; KW VEGF-G; Vascular Endothelial Growth Factor; antiatherosclerotic; tumour; KW proliferative; activator; proliferation; differentiation; motility;	<pre>KW growin; Fust-D receptor; antagonius; tissue remodelling; treat; KW atherosclerosis; wound; metastasis. XX XX Homo sapiens.</pre>	AA PN WO200027879-A1.	AA PD 18-MAY-2000. XX XF 10-NOV-1999. 99WO-TISO26462.	10-NOV-1998;		04-OCT-1999;	05-OCT-1	PA (LUDW-) LUDWIG INST CANCER RES. PA (UYHE-) UNIV HELSINKI LICENSING LTD OY.	Eriksson U,	PI Oestman A, Heldin C; XX	DR WPI; 2000-376495/32. DR N-PSDB; AAD00737.	Novel polynucleotides encoding a novel growth factor of	PT a platelet-derived growth factor, useful for diagnostic and therapeutic PT applications, e.g. concerning cancer.			CC The present sequence is an N-terminally truncated polypeptide of human	practice delived growth ractor (VEGF) -G. It is derived
1	-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries	Dase : A_Geneseq_23Sep04:*  1: geneseqp1980s:*  2: geneseqp1990s:*  3: geneseqp2000s:*	1: geneseque 2001s: * 6: geneseque 2003s: * 7: geneseque 2003bs: * 8: geneseque 2004ss: *	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.	SUMMARIES	lt Query o. Score Match Length DB ID Description	1742 100.0 322 3 AAY71129 Aay71129 Human Pla 1742 100.0 347 7 ADK68120 Adk68120 Novel Nov	100.0 364 4 AAU12264 Aau12264 Human	1/42 100.0 364 5 ARELSB20 ARELSB20 HUMMAN 1742 100.0 364 5 ARBB4973 Abb84973 HUMMAN	6 1742 100.0 364 5 ABB95579 Abb95579 Human ang 7 1742 100.0 364 6 AB017708 Abo17708 Novel hum	364 364	1742 100.0 364 6 ABUS9743 Abus9743 Novel 1742 100.0 364 6 ABO24933 Abo24933 Human	1742 100.0 364	100.0 364 6 ADA76136 Ada76136 Human 100.0 364 6 ADA18786 Ada18786 Human	1742 100.0 364 1742 100.0 364	100.0 364 6 ADB27735 Adb27735 Human 100.0 364 6 ADB86214 Ada86214 Novel	1742 100.0 364 6 ADB15778 Adb15778 Human 1742 100.0 364 6 ADA47564 Ada47564 Human	1742 100.0 364 6 ADA67359 Ada67359 Human	100.0 364	1/42 100.0 364 6 ADA85862 ADA85862 NOVEL 1742 100.0 364 6 ADA86874 Ada96874 Human

S No

Result

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lambdagtl0 cDNA library, It belongs to the VEGF/PDGF family. It functions as an activator of proliferation, differentiation, growth and motility of cells, that express PDGF-D receptor. This sequence is useful for inhibiting the growth of tumours, that express PDGF-D. Expression of PDGF-D and its proteolytic cleavage for generating an activated truncated form is useful for regulating receptor binding specificity of PDGF-D. PDGF-D antagonist is useful for inhibiting tissue remodelling during the invasion of tumour cells into normal cells. PDGF-D may be used to treat wounds, atherosclerosis, metastasis and migration of smooth muscle cells
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                                                                                                                                                                                                                                                                                                                                                                                                              PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLINDDAKRYSCTPRNYSVNIREELKLA
                                                                                                                                                                                                                                                                                                                                                                                         CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS
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                                                                                                                                                                                                                                                                              Gaps
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                                                                                                                                                                                                 Sequence 322 AA;
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The invention relates to novel NOVX protein and their encoding DNA's,
mature forms of the proteins or sequences that are at least 95% identical
cc to, or having one or more conservative amino acid substitutions in, the
proteins. The polypeptides, nucleic acid molecules and antibodies are
useful in the manufacture of a medic acid molecules and antibodies are
associated with a human disease, preferably a NOVX-associated disorder.
The nucleic acid molecules, polypeptides and antibodies are useful for
treating, preventing or dispussing diseases such metabolic disorders,
clabetes, obesity, infectious diseases (viral, bacterial, fungal,
helminthic, and protozoal), anorexia, cancer, cardiovascular diseases
(hypertension, atherosclerosis), neurodegenerative disorders, Alzheimer's
disease, Parkinson's disease, epilepsy, immune disorders, Alzheimer's
costeoarthritis), hematopoietic disorders, inflammatory skin disorders,
asthma, and various dyslipidemias. The nucleic acids and polypeptides may
also be used as targets for the identification of small molecules that
colliberation, hematopoiesis, wound healing and angiogenesis, in gene
therapy, in generation of antibodies that bind immunospecifically to NOVX
substances for use in therapeutic or disquostic methods. The nucleic
substances for use in therapeutic or disquostic methods. The nucleic
substances for use in therapeutic or disquostic methods. The nucleic
                                                                                                                                                                                                                                                                                                                                                                                                              Stone DJ;
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                                                                                                                                                                                                                                                                                                                    SJ;
RR, Gerlach VL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                acids are further used as hybridization probes, in chromosome mapping, tissue typing, preventive medicine, and pharmacogenomics. This sequence corresponds to one of the NOVX proteins of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated NOVX polypeptides and polymucleotides, useful for preventing, diagnosing or treating NOVX-associated disorders, e.g. osteoarthritis, obesity, atherosclerosis, cancer, Parkinson's disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI
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NP, Lepley DM, Li L;
Patturajan M, Peyman JA;
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Shimkets RD,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; SEQ ID NO 46; 323pp; English.
                                                                              2002US-0374379P.
2002US-0380973P.
2002US-0384297P.
2002US-0384329P.
2002US-0389729P.
                 2002US-0370359P.
2002US-0370969P.
2002US-0372019P.
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2002US-0403748P.
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nes 322; Conservative
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                                                                                22-APR-2002; 2
15-MAY-2002; 2
30-MAY-2002; 2
30-MAY-2002; 2
                                      08-APR-2002;
12-APR-2002;
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01-APR-2003; 2003WO-US009775. 01-APR-2002; 2002US-0369065P.

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08-NOV-2000; 2000WO-US030952.
10-NOV-2000; 2000WO-US030873.
                                                                                                                                                           WPI; 2001-408281/43.
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                                                                                         266 NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA 325
                                                                                                                                                                                                                                                                                                                                                                                                       Human secretory and transmembrane, PRO; mammalian, cancer, lung; breast, prostate, cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage, ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte; A-peptide; factor VIIA; gene therapy.
NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA
                                                                                                                                                           LVDIQLDHHERCDCICSSRPPR 347
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                                                                                                                                                                                                                                                                                                                                                                      Human PRO4345 polypeptide sequence.
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99WO-US028564.
99WO-US028565.
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2000WO-US005841.
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2000WO-US023328.
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99WO-US030999
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2000WO-US005004
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11-FEB-2000;
18-FEB-2000;
21-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
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24-AUG-2000;
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Additionable represent novel human secretory and transmembrane. PRO polypeptides. The PRO polypeptides are useful to detect other PRO colypeptides, to link bioactive molecules to calls expressing PRO polypeptides, to and to detect the presence of mammalian lung, colon, polypeptides, and to detect the presence of mammalian lung, colon, breast, prostate, rectal, cervical or liver tumours by comparing PRO colypeptide expression in a call sample to that in a control sample. Some of the 275 sequences are also useful to stimulate the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, the proliferation or differentiation of chondrocytes, the proliferation or gene expression in pericyte cells, the release of proteoglycans from cartilage, the proliferation of inner ear utricular supporting cells or of T-colliferation of inner ear utricular supporting cells or of T-colliferation of inner ear utricular supporting cells or of T-colliferation of inner ear utricular supporting cells or of T-colliferation of endothelial cells. Some of the PRO polypeptides may modulate glucose or free fatty acid uptake by skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide to factor collivolved in binding interactions. The polymucleotides encoding PRO polypeptides can be used in assays to identify molecules involved in binding interactions. The polymucleotides encoding PRO polypeptides can be used to generate probes, antisense RNA/DNA, transgenic or knock out animals and can be used in gene therapy
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                                                                                                                                                                                                                                                                                                                                                                                                            Isolated , secretory and transmembrane PRO polypeptide used to detect other PRO polypeptides, link bioactive molecules to cells expressing PRO polypeptides, and detect the presence of mammalian tumors e.g. lung,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS
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                                                                                     Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G.
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 12; Fig 186; 813pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           breast, prostate, cervical.
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Matches 322; Conservative
(GETH ) GENENTECH INC.
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103 CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS 162
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2001US-00828366
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08-NOV-2000;
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05-APR-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Analog of a platelet-derived growth factor homolog, LPBS useful for treating osteoporosis, arthritis, sarcopenia, wounds, has one or more amino acid substitutions which destroy the tripeptidyl sequence of native
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                                                                                               LP85; platelet-derived growth factor; PDGF; antiinflammatory; vulnerary; osteopathic; neuroprotective; tranquilliser; musculoskeletal disorder; MSD; therapy; bone growth, cartilage differentiation; wound healing; neuron growth; bone fracture; osteoporosis; osteopenia; arthritis; sarcopenia; periodontal disease; tissue atrophy; endocrine disorder; muscle loss; immobility; bone density.
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                                                                                                                                                                                                                                            13. 364
/label= Human_mature_LP85_protein
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Mismatches 0
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                                                                                                                                                                                                           1. .12
/label= Signal_peptide
13. .364
                                                                                                                                                                                                         Location/Qualifiers
  AAE15820 standard; protein; 364 AA.
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                                                (first entry)
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                                                                         Human LP85 protein #2.
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                                                                                                                                                                                    Homo sapiens
                                                  26-MAR-2002
                                                                                                                                                                                                                                                                                                        29-NOV-2001.
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282
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163 LLEDFQPAAASETWWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN
                                                                                                                                                                                                                                                                              283 NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTWA
                                                                                                   PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA
                                                                                                                                          223 PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA
                                                                                                                                                                                                                                          NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGH1KRRGRAKTMA
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2000WO-US023328
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BAKER K P.
FERRARA N.
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18-SEP-2000; 2
18-SEP-2000; 2
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08-NOV-2000;
08-NOV-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2001;
                                                           19-JUL-2002
                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                              31-JAN-2002
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                           ABB95579;
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(GODO/)
(GURN/)
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(GERB/)
(GERR/)
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                                                                                                                                                                                                                                                                                                                                                                                                          ABB85003. The PRO proteins and polynucleotides have cardiant, cytostatic, ABB85003. The PRO proteins and polynucleotides have cardiant, cytostatic, antiangiogenic, hypotensive, vulnerary and antiarteriosclerotic cartivities, and can be used in gene therapy. The PRO polynucleotides, proteins, agonists and antagonists are useful for treating or diagnosing a cardiovascular, endothelial or angiogenic disorder in a mammal, e.g. cardiac hypertrophy, trauma, cancer, age-related macular degeneration, atherosclerosis, hypertension, arterial restenosis, rheumatoid arthritis, angina, myocardial infarctions, thrombophlebitis, lymphangitis, tumour angiogenesis (such as breast carcinoma and liver carcinoma) and wound including use as hybridisation probes, and in chromosome and gene mapping. ABL88259 to ABL88267 represent primers and probes used in the exemplification of the present invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  223 PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA : 282
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLEDFOPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN 180
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                                                                                                                                                                                         Baker KP, Ferrara N, Gerber H, Gerritsen ME, Goddard A;
Godowski PJ, Gurney AL, Hillan KJ, Marsters SA, Pan J, Paoni NF;
Stephan JF, Watanabe CK, Williams PM, Wood WI, Ye W;
                                                                                                                                                                                                                                                                                                              One hundred and eighty seven nucleic acids encoding PRO polypeptides, useful in diagnosis and treatment of cardiovascular (e.g. myocardial infarction), endothelial or angiogenic disorders in a mammal.
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                                                                                                                                                                                                                                                                                                                                                                                  Claim 11; Fig 314; 565pp; English.
2001US-00854208.
2001US-00854280.
2001US-00866028.
2001US-00866034.
                                                                         2001WO-US017092.
2001US-00870574.
2001WO-US017443.
                                                                                                                            2001WO-US017800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.
Best Local Similarity 100.
Matches 322; Conservative
                                                                                                                                                           (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                               WPI; 2002-090516/12.
N-PSDB; ABL88228.
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        10-MAY-2001;
10-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                                                                           25-MAY-2001;
30-MAY-2001;
                                                                                                                            01-JUN-2001;
                                                                                                              30-MAY-2001;
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          셤
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ABB95579 standard; protein; 364 AA

RESULT 6 ABB95579 ID ABB9

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Human, angiogenesis, PRO protein, cardiovascularisation, wound, cancer, atherosclerosis, cardiac hypertrophy, gene therapy, endochelial disorder, cardiant, cytostatic, antiangiogenic, hypotensive, vulnerary, antiarteriosclerotic.
                          Human angiogenesis related protein PRO4345 SEQ ID NO: 314
                                                                                                                                                                       2000US-00665350.
                                                                                                                                                                                                              2000WO-US034956
                                                                                                                                                                                                                               2001WO-US006520
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2001WO-US019692
                (first entry)
                                                                                                                                                                                                                                                                                                                                                     GODDARD A.
GODOWSKI P J.
GURNEY A L.
HILLAN K J.
                                                                                                                                                                                                                                                                                                                         GENENTECH INC
                                                                                                                                                                                                                                                                                                                                               GERRITSEN M E
                                                                                                                                                                                                                                                                                                                                                                            MARSTERS S A.
                                                                                                                                                                                                                                                                                                                                                                                      PACNIN F.
STEPHAN J F.
WATANABE C K
WILLIAMS P M
                                                                                                                                                                                                                                                                                                                                                                      (HILL/)
(MARS/)
(PANJ/)
(PAON/)
(STEP/)
(WATA/)
(WILL/)
(WOOD/)
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2000WO-US022031
                        Homo sapiens.
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11-AUG-2000;
                                                                                                                                  06-MAY-2002;
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22-FEB-2000;
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                                                                                               13-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                         29-OCT-1998
29-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                20-NOV-1998
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20-APR-1999
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20-DEC-1999
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15-SEP-19
15-SEP-19
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                                                                                                                                                                                                                                       The present invention provides the protein and coding sequences of human PRO proteins. These are useful for treating or diagnosing a cardiovascular, endothelial or angiogenic disorder, including cardiac hypertrophy, trauma, cancer, age-related macular degeneration, atherosclerosis, hypertension, arterial restenosis, rheumatoid arthritis, angina, mycoardial infarctions, thrombophlebitis, lymphangitis, tumour angiogenesis (such as breast carcinoma and liver carcinoma) and wound healing. The present sequence is a PRO protein of the invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    162
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                   Marsters SA, Pan J, Paoni NF, M, Wood WI, Ye W;
                                                                                                                              One hundred and eighty seven nucleic acids encoding PRO polypeptides, useful in diagnosis and treatment of cardiovascular (e.g. myocardial infarction), endothelial or angiogenic disorders in a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; secreted and transmembrane protein; PRO; antiinflammatory;
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0
                                                                                                                                                                                                                                                                                                                                                                                                                                                5; Length 364;
   Goddard A;
                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 1742; DB 5; Length
100.0%; Pred. No. 5e-166;
tive 0; Mismatches 0; Indels
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Baker KP, Ferrara N, Gerber H, Gerritsen ME, G
Godowski PJ, Gurney AL, Hillan KJ, Marsters SA,
Stephan JF, Watanabe CK, Williams PM, Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               322
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                                                                                                                                                                                                          Claim 11, Fig 314; 567pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 322; Conservative
                                                                          WPI; 2002-171999/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                           N-PSDB; ABL95717.
                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 364 AA;
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2000WO-US004341.
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2000WO-US004414.
2000WO-US004914.
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98WO-US017888.
98WO-US018824.
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98WO-US025108.
99WO-US000106.
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99WO-US005190.
99WO-US008615.
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99WO-US021547.
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99WO-US028214.
99WO-US028313.
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2000WO-US007532.
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2000WO-US000219.
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98WO-US022991
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2000WO-US020710
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US2003032156-A1.
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Gaps

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0; Indels

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Matches 322; Conservative Best Local Similarity

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102 120 162

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1 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI LYRRDETI QVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI

100.0%; Score 1742; DB 6; Length 364; 100.0%; Pred. No. 5e-166;

transmembrane PRO polypeptide

Sequence 364 AA;

Query Match

222 240

LLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN

CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS LLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN 윤 ò g ò 셤

PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA

LVDIQLDHHERCDCICSSRPPR 322 343 LVDIQLDHHERCDCICSSRPPR 364

ABU80962 standard; protein; 364 AA

RESULT 8 ABU80962 (first entry)

23 - JUN - 2003

ABU80962;

Human PRO polypeptide #93

NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA

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2001US-00802706.
2001US-00808689.
2001US-0081644.
2001US-00854208.
2001US-00854208.
                                                                                                     2001WO-US017092
2001US-00872035
2001WS-087800
2001WS-00874503
2001US-00886342
                                                                                           2001US-00866028
2001US-00866034
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2001US-00887879,
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                                                                                                                                                        2001WO-US021066
                                                                                                                                                                                                             Baker KP, Beresini M, D
Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tu
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20-JUN-2001;
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10-MAY-2001;
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                     DEC-2000;
                                                                                      18-MAY-2001;
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Gao W;
                                                                                                                                                                                                                                                        New secreted and transmembrane PRO nucleic acids, for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, axquired immunodeficiency syndrome (AIDS), or cancer.
Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 12; Fig 186; 660pp; English.
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Human; PRO polypeptide; secreted and transmembrane protein; anti-PRO antibody; diagnostic assay; gene expression; diabetes; bone disorder; cartilage disorder: rheumatoid arthritis; obesity; sports injury; osteoarthritis; hyper-insulinaemia; hypo-insulinaemia; hearing loss; coagulation disorder; stroke; heart attack; cardiant; antidiabetic; andrectic; vulnerary; antiarthritic; osteopathic; antirheumatic; anditory; cerebroprotective; anglogenic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9705-0059115P.
9708-0059117P.
9708-0059184P.
970S-0059184P.
970S-0059352P.
970S-0059352P.
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97US-0056974P.
97US-0059113P.
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97US-0062287P.
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The invention describes an isolated nucleic acid (I) comprising, or which has 80 % sequence identity to, or the full-length coding sequence of, one 67 275 nucleotide sequences, and which encodes a corresponding color of 275 nucleotide sequences, where all sequences polypeptide selected from 275 amino acid sequences, where all sequences of perceptide selected from 275 amino acid sequences, where all sequences of elected from 275 amino acid sequences, where all sequences of creeds of tumour necrosis factor (TNF)-alpha from human blood, modulate the proliferation or differentiation of cells, stimulate the release of proteoglycans, stimulate the release of cytokine the proliferation or differentiation of cells or gene expression, circum peripheral blood emonourclear cells, inhibit the binding of A-peptide conformation of cells or gene expression, caid and polypeptide encoded by it, are useful for treating inflammatory diseases, organ failure, atherosclerosis, cardiac injury, inferrility, cancer, or diabetic complications. The nucleic acid is useful as hybridisation probes, in chromosome and gene mapping, and in generating antisense RNA or DNA. The polypeptides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. Both are useful in tissue typing. This is the amino acid sequence of a novel human secreted and
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97US-0062814P.
97US-0062816P.
97US-0063812P.
97US-00633127P.
97US-0063312P.
97US-0063312P.
97US-0063312P.
97US-0063751P.
97US-0063751P.
97US-0063751P.
97US-0063734P.
97US-006481P.
97US-006481P.
97US-0066314P.
97US-0066314P.
97US-0066314P.
97US-0066314P.
97US-0066314P.
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97US-0066314P.
97US-0066314P.
97US-0066314P.
97US-0069212P.
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97US-0069212P.
97US-0069212P.
97US-0069218P.
97US-0073492P.
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98WO-US019093.
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28-0CT-1997;
28-0CT-1997;
29-0CT-1997;
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29-0CT-1997;
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24-0CT-1997;
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27-MAR-1998;
27-MAR-1998;
31-MAR-1998;
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29-OCT-1998;
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Gaps

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100.0%; Score 1742; DB 6; Length 364; 100.0%; Pred. No. 5e-166; ive 0; Mismatches 0; Indels 0;

Best Local Similarity 100. Matches 322; Conservative

Query Match

102

43 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI

1 LYRRDETIONKGNGYVOSPRPNSYPRNLLLTWRLHSOENTRIOLVEDNOFGLEEAENDI

CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS

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CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS

163 LLEDEQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN

LLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN

9

240 282 NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA 300

NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEFGHIKRRGRAKTWA

LVDIQLDHHERCDCICSSRPPR 322 343 LVDIQLDHHERCDCICSSRPPR 364

301

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283

PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA

PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA

181 223 241

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The present invention relates to the isolation of novel human PRO polypeptides, and the polymucleotide sequences encoding them. The PRO polypeptides are secreted and transmembrane proteins. The PRO polypeptides and polymuclotides are useful for preparing a medicament useful in the treatment of diabetes, bone and/or cartilage disorders (e.g. rheumatoid arthritis, sports injuries, osteoarthritis), obesity, hyper- or hypo-insulinaemia, hearing loss, and coagulation disorders (e.g. stroke, heart attack). Anti-PRO antibodies are useful in diagnostic assays for PRO, by detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cells ulture or natural sources. ABUS0870-ABUS1144 represent the human PRO polypeptides of the invention. Note: The sequence data for this patent sequata.uspto.gov/psipsDEDEntry.html
                                                                                                                                                                                                                                                                                                                                                                                                                                            New isolated PRO polypeptide useful for treating diabetes, rheumatoid arthritis, sports injuries, obesity, hearing loss in mammals, stroke, heart attack.
                                                                                                                                                                                                                                                                                                            Gao
                                                                                                                                                                                                                                                                                                        Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 12; Fig 186; 643pp; English.
            30-DEC-1999, 99W0-US031274.

05-JAN-2000; 2000W0-US000219.

06-JAN-2000; 2000W0-US000376.

11-FEB-2000; 2000W0-US00376.

11-FEB-2000; 2000W0-US004341.

18-FEB-2000; 2000W0-US004342.

22-FEB-2000; 2000W0-US004414.

24-FEB-2000; 2000W0-US004914.

24-FEB-2000; 2000W0-US006914.

01-MAR-2000; 2000W0-US0050601.
                                                                                                                                                                                                                                                                     (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-352836/33.
N-PSDB; ACA67086.
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New secreted and transmembrane PRO nucleic acids, useful for gene therapy, in chromosome and gene mapping, as chromosome markers, in tissue typing, and in chromosome identification.
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24-FEB-2000; 2000WO-USO05004.
01-MAR-2000; 2000WO-USO05601.
02-MAR-2000; 2000WO-USO05841.
10-MAR-2000; 2000WO-USO05841.
11-MAR-2000; 2000WO-USO05841.
20-MAR-2000; 2000WO-USO05841.
21-MAR-2000; 2000WO-USO05841.
21-MAY-2000; 2000WO-USO07377.
22-MAY-2000; 2000WO-USO17377.
23-MAY-2000; 2000WO-USO17377.
23-MAY-2000; 2000WO-USO17441.
23-MAY-2000; 2000WO-USO17641.
24-AUG-2000; 2000WO-USO1761.
21-MG-2000; 2000WO-USO1761.
23-MG-2000; 2000WO-USO1762.
24-AUG-2000; 2000WO-USO1762.
24-AUG-2000; 2000WO-USO1767.
26-NOV-2000; 2000WO-USO1767.
26-NOV-2000; 2000WO-USO1766.
26-PEB-2001; 2001WO-USO1766.
26-PEB-2001; 2001WO-USO1766.
26-PEB-2001; 2001WO-USO1766.
26-PEB-2001; 2001WS-0080666.
36-PEB-2001; 2001WS-0080666.
36-PEB-2001; 2001WS-0080660.
36-PEB-2001; 2001WS-0080660.
36-PEB-2001; 2001WS-008660.
36-PEB-2001; 2001WS-008660.
36-PEB-2001; 2001WS-008660.
36-PWAY-2001; 2001WS-008660.
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Gerritsen ME, Goddard
Smith V, Stewart TA,
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N-PSDB; ACA03695.
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22-JUN-2001; 2
29-JUN-2001; 2
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20-JUN-2001;
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    Human, PRO polypeptide, secreted and transmembrane protein,
tumour necrosis factor-alpha, TNF-alpha, blood, proliferation,
differentiation, chondrocyte, tumour, genetic disorder, cytostatic.
                                                    ABU66662 standard; protein; 364
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98WO-US012456.
98WO-US014552.
98WO-US01888.
98WO-US018093.
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98WO-US022991.
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99WO-US020594.
99WO-US020944.
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99WO-US030911,
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98WO-US019330.
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2000WO-US003565
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                                                                                                        23-MAY-2003 (first entry)
                                                                                                                                 Human PRO polypeptide #93
                                                                                                                                                                                                                                      JS2003036180-A1
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24-FEB-2000;
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02-JUN-1999
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10-NOV-1998
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29-NOV-19
                            RESULT 9
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3 Gao

Deforge L, Desnoyers L, Filvaroff E, G A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z;

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28-FEB-2001;
01-MAR-2001;
     for stimulating the release of tumour necrosis factor (TNF)-alpha from human blood, for stimulating the proliferation or differentiation of chondrocytes, and detecting the presence of tumours. The polynucleotide sequences encoding PRO polypeptides are useful as hybridisation probes, in chromosome and gene mapping, in the generation of antisense RNA and DNA, in the preparation of PRO polypeptides, for generating transgenic animals or knockout animals, for the generic analysis of individuals with genetic disorders, and in gene therapy. ABU66570-ABU66844 represent the human PRO polypeptides of the invention. Note: The sequence data for this patent was obtained in electronic format directly from the USPTO web site at seqdata.uspto.gov/psipsDIDEntry.html
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                                                                                                                                                                                                                                                                                       CRYDEVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS 162
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100.0%; Pred. No. 5e-166;
tive 0; Mismatches 0
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2001US-00802706.
2001US-00816744.
2001US-00816744.
2001US-00854208.
2001US-00854280.
2001US-00864280.
2001US-008660216.
                                               2001MO-US017092.
2001WS-00872035.
2001WS-00874503.
2001US-00882636.
2001US-00886342.
2001WG-US0186942.
                                                                                                      2001WO-US021735.
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19-DEC-2001; 2001US-00028072
                                                                     14-JUN-2001;
19-JUN-2001;
20-JUN-2001;
                      10-MAY-2001;
10-MAY-2001;
                                18-MAY-2001;
25-MAY-2001;
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           22-MAR-2001;
05-APR-2001;
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## (GETH ) GENENTECH INC

Gao W; Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ge Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

## WPI; 2003-148238/14. N-PSDB; ABX89233.

Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.

## Claim 12; Fig 186; 659pp; English.

The invention describes an isolated human PRO polypeptide. The PRO polypeptides are useful in detecting PRO polypeptides in a sample, in collipking a bioactive molecule to a cell expressing a PRO polypeptide, and in modulating at least one biological activity of a cell expressing a PRO colypeptide. PRO1312 stimulates hypertrophy of neonatal heart and is thus polypeptide. PRO1312 stimulates hypertrophy of neonatal heart and is thus carfing cardiac insufficiency disorders. PRO1154 and PRO136, pro943, PRO826, PRO826, PRO826, PRO826, PRO826, PRO937, PRO826, PRO937, PRO826, PRO937, Induce, c-fos in endothelial growth, and PRO536, PRO933, PRO938, PRO9387 induce, c-fos in endothelial growth, and are thus useful for treating canditions or disorders where angiogenesis would be beneficial, e.g. wound healing and antagonist of this polypeptide are useful for treating cancerous tumours. PRO812 inhibits vascular cells and is thus useful for inhibiting endothelial cell growth in mammals which would be beneficial in inhibiting tumour growth. PRO826, PRO1068, PRO1184, PRO1144, PRO1375 stimulated proliferation of estimulated T-lymphocytes and are therapeutically useful for enhancing immune response. PRO826, PRO1068 or PRO1132 enhance survival/proliferation of cells in therefore are useful for treating retinal disorders of injuries, e.g. retinitis pigmentosum, AMD. PRO819, PRO813, and therefore are useful for treating concerned with dermatitis, herpetiformis or Crohn's decreased mesangial cell function such as Berger disease or other cheepers. PRO1130, PRO8132, PRO1192 and PRO116eration and or redifferentiation of chondrocytes in culture and are thus useful for treating sports injuries, and arthritis. This is the amino acid sequence of a novel human PRO protein

Sequence 364 AA;

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                                                                                                                                                                LLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN 180
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                                                                                                                                                                                                                                                                        241 NVVPPPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA 300
                                                                                                                                                                                                                                                                                        283 NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; PRO; secreted protein; transmembrane protein; tumour; cytostatic; gene therapy; tumour necrosis factor-alpha; TNF-alpha; blood; proteoglycan; cartilage; cytokine; peripheral blood mononuclear cell; PBMC; glucose uptake; FFA; skeletal muscle cell; adipocyte cell; chondrocyte cell politeration; chondrocyte cell differentiation; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell; A-peptide; factor VIIA.
                                                                                                                      163 LLEDFQPAAASETIWWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN
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                                                                               43 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI
                                                                                                          CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS
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 Length 364;
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               5e-166;
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100.0%; Score 1742;
100.0%; Pred. No. 5e-
ive 0; Mismatches
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10-MAR-1999;
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17-SEP-1998;
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18-FEB-2000;
22-FEB-2000;
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01-SEP-1999
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New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or PRO4978, useful in molecular biology, chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy.
                                                                                 Deforge L, Desnoyers L, Filvaroff E, (
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z,
                    18-JUL-2001; 2001US-00908827
06-AUG-2001; 2001US-00924419.
09-AUG-2001; 2001US-00927796.
16-AUG-2001; 2001US-00931836.
     29-JUN-2001; 2001WO-US021066
09-JUL-2001; 2001WO-US021735
                                                   19-DEC-2001; 2001US-00028072
                                                                              Beresini M, De
ME, Goddard A,
                                                                                      Gerritsen ME, Goddard
Smith V, Stewart TA,
                                                                 (GETH ) GENENTECH INC.
                                                                                                              WPI; 2003-466355/44.
N-PSDB; ACD41887.
                                                                                 Baker KP,
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Gao W;

Claim 12; Fig 186; 659pp; English.

The invention relates to an isolated nucleic acid comprising at least 80% comprising a nucleic acid (a) encoding a RRO polypeptide, or its comprising a nucleic acid (a) encoding a RRO polypeptide, or its comprising a nucleic acid (a) encoding a RRO polypeptide, or its comprising a nucleic acid (a) encoding a RRO polypeptide, or its comprising a nucleic acid (a) encoding a RRO polypeptide, or (c) comprising the conformation in the specification, or of the DNA deposited under any of the American Type fill-length coding sequence of the nucleotide sequences given in the specification, or of the DNA deposited under any of the American Type comprising the vector, producing a RRO polypeptide in the specification.

Also included are a vector comprising the novel nucleic acid, a host cell comprising the vector, producing a RRO polypeptide of fused to a heterologous amino acid sequence, an anti-PRO polypeptide defused to a heterologous amino acid sequence, an anti-PRO artibody, detecting a PRO polypeptide in a sample suspected of containing the PRO polypeptide, modulating at least one biological activity of a cell expressing a PRO polypeptide, simulating the release of tumour necrosis cartibody. Getecting a PRO polypeptide, simulating the release of tumour necrosis cartilage or cytokine from peripheral blood monounclear cells (PBMC), adjocyte cells (from appropried or type produced or simulating the proliferation or differentiation of adjocyte cells (or of T-lymphocyte cells, or of fendothalial cells), inhibiting the cells, of of T-lymphocyte cells, or of fendothalial cells), inhibiting the proliferation of the nucleotide sequences given in the specification. The polymucleotide is useful in moneral and an cells, detecting the presence of a tumour in a mammal and an cells, detecting the presence of a tumour in a mammal and an cells, detecting the presence of a tumour in cherzype confire or in the specification. The polymucleotide is useful in gene therzape proper or confirence or the polymphocy or cells, or of polymphocy polypeptide

Sequence 364 AA;

0; Gaps 100.0%; Score 1742; DB 6; Length 364; 100.0%; Pred. No. 5e-166; Indels 0; Mismatches 0; Indels 0; Best Local Similarity 100.0 Matches 322; Conservative Query Match

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us-10-086-623-6.rag

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2000WO-US000376
2000WO-US003565
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2000WO-US004414
2000WO-US005004
2000WO-US005601
2000WO-US005601
2000WO-US005841
2000WO-US005841
2000WO-US00684
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2000WO-US00684
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2001US-00808689
2001US-00818366
2001US-00854208
2001US-00854208
2001US-00856218
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2001US-00874503.
2001US-00882636.
2001US-00886342.
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99WO-US028634.
99WO-US028564.
99WO-US028565.
99WO-US030999.
99WO-US0309999.
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2000WO-US008439.
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2000WO-US015264.
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09-MAR-2000;
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10-NOV-2000;
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  LLEDFQPAAASETNWESVTSSISGVSYNSPSVTDFTLIADALDKKIAEFDTVEDLLKYFN 180
                                                                                                                                      NVVFFPRCLLVQRCGGGCGCTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA 300
                        CRYDFVEVEDDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS 162
                                                                                                                   282
                                                                                              PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA 240
             CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS
                                                                                                           PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA
                                                                                                                                                                                                                                                                                                                                              Human; secreted protein; transmembrane protein; PRO;
inflammatory disease; organ failure; atheroselerosis; cardiac injury;
infertility; birth defects; premature aging; AIDS; biosensor;
acquired immunodeficiency syndrome; cancer; diabetic complication;
                                                                                                                                                                                                                                                                                                                           Human secreted/transmembrane, PRO, protein SEQ ID 186
                                                                                                                                                                                 LVDIQLDHHERCDCICSSRPPR 322
                                                                                                                                                                                                                                                             ABU66938 standard; protein; 364 AA
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98WO-US012456.
98WO-US017888.
98WO-US018034.
98WO-US01903.
98WO-US019034.
98WO-US019177.
98WO-US019171.
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99WO-US005190.
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99WO-US021547.
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bioreactor; tumour
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16-SEP-1998;
17-SEP-1998;
07-OCT-1998;
29-OCT-1998;
20-NOV-1998;
01-DEC-1998;
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08-MAR-1999;
10-MAR-1999;
20-APR-1999;
14-MAY-1999;
02-JUN-1999;
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28-AUG-1998;
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14-SEP-1998;
14-SEP-1998;
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13-SEP-1999
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Gao W;

us-10-086-623-6.rag

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Beresini M, Deforge L, Desnoyers L, Filvaroff E, G;
1E, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
(GETH ) GENENTECH INC.
                  Stewart TA,
                          WPI; 2003-331925/31.
                               N-PSDB; ACA04116
             Gerritsen ME,
         Baker KP,
                  Smith V,
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New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or cancer

Claim 12; Fig 186; 659pp; English.

The invention relates to an isolated mucleic acid comprising, or which is at least 80% identical to, or the full-length coding sequence of, any of the 275 nucleotide sequences, encoding the corresponding PRO polypeptide (one of 275 secreted or transmembrane proteins). The nucleic acid further comprises the full-length coding sequence of the DNA deposited under American Type Culture Collection (AFCC) accession number in a list given in the specification. Also included are vectors and host cells for producing PRO proteins, PRO fusion proteins, anti-pRO antibodies, PRO extracellular domains and mature sequences of TNF-alpha (tumour corrects) sector alpha) from human blood, (and the proliferation of proteins, methods for stimulating the release of TNF-alpha (tumour necrosis factor alpha) from human blood, (and the proliferation of differentiation of chondrocyte cells, the proliferation of, or gene expression in pericyte cells, the release of proteinstance of a cytokine from cartilage, proliferation of inner ear uricular supporting cells, the proliferation of cartilage, proliferation of inner ear uricular supporting cells, the collection of action of adipocyte cells, the release of actokine from proliferation of T-lymphocyte cells, the release of actokine from proliferation of T-lymphocyte cells, the release of actokine from proliferation of T-lymphocyte cells, the release of actokine from cells (PRA) by skeletal muscle cells, a method for detecting the presence of a tumour in a mammal and an oligonucleotide probe derived from any of the nucleotide sequences cited colling managery diseases, organ failure, archerosclerosis, cardiac injury, infertility, birth defects, premature aging, ALDS (acquired infammatory diseases, organ failure, archerosclerosis, cardiac injury, infertility, birth defects, premature aging, ALDS (acquired mapping, and in generating antisease NNA or DNA. The polypeptides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. Both create inverse or inverse of the invention of the i are useful in tissue typ. protein of the invention

Sequence 364 AA;

102 120 162 180 222 240 282 300 9 CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA 43 LYRKDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI LLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN LLEDFQPAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA 1 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA ; 0 100.0%; Score 1742; DB 6; Length 364; larity 100.0%; Pred. No. 5e-166; Conservative 0; Mismatches 0; Indels 0; Local Similarity Les 322; Conserv Query Match 61 103 163 241 121 181 223 Best Loca Matches qq à 셤 à a ò g ò

99WO-US031274

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Tumour necrosis factor alpha release; TNF-alpha release; glucose uptake modulator; eta uptake modulator; eta uptake modulator; etal proliferation stimulator; cell differentiation stimulator; cell differentiation inhibitor; cytokine release stimulator; tumour; lung tumour; prostate tumour; rectal tumour; ervical tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                               Novel human secreted and transmembrane protein PRO4345.
                                                                                                                                                   Human; secreted and transmembrane protein; PRO;
301 LVDIQLDHHERCDCICSSRPPR 322
         343 LVDIQLDHHERCDCICSSRPPR 364
                                                                   ADA45705 standard; protein; 364 AA
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                   18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
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(GETH ) GENENTECH INC.

3 Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; ME, Goddard Stewart TA, Beresini M, Gerritsen Smith V, Baker KP,

2003-584997/55. N-PSDB; ADA45704. Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers.

Claim 12; Fig 186; 659pp; English

Human; PRO; secreted polypeptide; transmembrane polypeptide;

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The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the creates of TWI-alpha from human blood, for modulating the uptake of glucose or FPA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, for stimulating proliferation of endothelial cells, for stimulating the proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, corells, for stimulating proliferation of endothelial cells, for detecting the probes of tumour in a mammal. The tumour is lung, colon, breast, core useful for isolating genomic and cDNA nucleotide sequences or antisense probes. (1) is also useful so the appendic any probes are useful for isolating genomic and cDNA nucleotide sequence or interaction. A polynucleotide (1) encoding (1) is useful in chromosome core mapping in reperation of antisense RNA and DNA, in the preparation of PRO polypeptide, for generating transgenic animals which in turn are useful in the development and corrected maining of therapeutically useful reagents. And for generating correcting its expression in appendic cells, itssues or serum, and for chromosome identification, as chromosome marker, and for generating sources. (1) and (11) are useful in diagnostic assays for PRO correcting its expression in appendic cells, itssues or serum, and for acid sequence of a novel human secreted and transmembrane PRO
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tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; eports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
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98WO-US017888.
98WO-US018824.
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The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for occord, the presence of a tumour in a mammal (e.g. adrenal, lung, polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating enther transgenic animals or knock-out animals which are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated nucleic acid encoding a secreted and transmembrane polypeptide, designated e.g. PRO1114 or PRO4978, useful in chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy.
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                                                                                                                                      2000WO-US030952.
2000WO-US030873.
2000WO-US032678.
2000US-00747259.
2000US-00784956.
2001US-00796498.
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2001US-00860216.
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Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tun
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osteoarthritis;
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Gao

Deforge L, Desnoyers L, Filvaroff E, G A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z;

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98WO-US021141.
98WO-US022991.
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              cc useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of autibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothalial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells, for medilating the uptake of stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endochelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides such as various thalassaemias and conditions which associated disorders such as various thalassaemias and conditions which associated disorders a buman PRO polypeptide of the invention. This sequence data for this patent is also available in electronic format from the useful content of the invention. Note: Them sequence data for this patent is also available in electronic format from the useful contents.
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tumour necrosis factor-alpha; TNF-alpha; blood; chondrocyte cell; lung;
colon; breast; prostate; rectum; cervix; liver; tumour; cancer;
glucose uptake; PFA; adipocyte cell; pericyte cell; proteoglycan;
cartilage; inner ear utricular supporting cell; cytokine; A-peptide;
factor VIIA; endothelial cell.
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Matches 322; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 364 AA;
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Sequence 364 AA;

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25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                         35-JUN-2001;
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               10-MAY-2001
                      11-JUN-2001
                               11-JUN-200
                                  :9-JUN-200
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2001WO-US021066

2001US-00908827

2001US-00874503. 2001US-00882636. 2001US-00886342.

2001WO-US019692

2001WO-US017800

2001US-00866028

2001US-00802706 2001US-00808689

2001US-00816744 2001US-00828366 2001US-00854280 2001US-00860216 2001US-00924419 ; 2001US-00927796 ; 2001US-00931836 19-DEC-2001; 2001US-00028072 (GETH ) GENENTECH INC. 09-AUG-2001

Gao W; Beresini M, Deforge L, Desnoyers L, Filvaroff E, G. ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Baker KP, Beresini M, Gerritsen ME, Goddard Smith V, Stewart TA,

WPI; 2003-521854/49 N-PSDB; ADA18785 New PRO nucleic acid, useful for preparing a composition for treating tumors. e.g.,

Claim 12; Fig 186; 660pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynuclectides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for constant in presence of a tumour in a mammal (e.g. lung, colon, breast, consone and gene mapping, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in chromatome and gene mapping, in generating an hybridisation probes, in chromosome and gene mapping, in generating any also be used in preparing PRO colorypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the colorypeptides or antibodies are used in preparing either transgenic animals or knock-out animals which are useful in the Colorypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for modulating the uptake of glucose or FFA by adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the release of proteglycans from cartillage, for stimulating the release of cytokines from PBMC colliferation of endothelial cells. This sequence represents a human PRO proliferation of endothelial cells. This sequence tepresents a human PRO polypeptide of the invention. Note: The sequence data for this patent is endothely a manner and provention of the proliferation of endothelial colmants and provention and proper and proper proliferation of endothelial colmants and provention and pr segdata.uspto.gov/sequence.html

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                                                                                 43 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI
                                                                                                                            CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS
                                                                                                                                            181 PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA
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   Length 364;
                                 Indels
   DB 6;
Query Match
100.0%; Score 1742; DB 6;
Best Local Similarity 100.0%; Pred. No. 5e-166;
Matches 322; Conservative 0; Mismatches 0;
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Best Local $
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Sequence 5, Appli
Sequence 4, Appli
Sequence 53, Appl
Sequence 55, Appl
Sequence 56, Appl
Sequence 56, Appl
Sequence 57, Appl
Sequence 57, Appl
Sequence 54, Appl
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Sequence 37, Appl
Sequence 2, Appli
Sequence 2, Appli
Sequence 37, Appli
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                                                                             ; Search time 39 Seconds (without alignments) 547.549 Million cell updates/sec
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Sequence 43,
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Sequence 4,
                                                                                                                                                               1 LYRRDETIQVKGNGYVQSPR.....DIQLDHHERCDCICSSRPPR 322
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(cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

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(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
5.1.6
Compugen Ltd.
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US-10-140-002-186
US-09-540-224-2
US-09-540-224-2
US-09-540-224-2
US-09-808-37
US-09-808-37
US-09-808-37
US-09-808-37
US-09-808-37
US-09-808-37
US-09-540-5950-53
US-09-564-5950-55
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US-09-564-5950-55
US-09-564-5950-55
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US-09-564-5950-55
US-09-564-5950-35
US-09-565-686-2
US-09-565-686-2
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US-09-564-595D-33
                                                                                                                                                                                                                                                         Potal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                478139 segs, 66318000 residues
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 GenCore version
Copyright (c) 1993 - 2004
                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                    protein search, using sw model
                                                                                October 29, 2004, 23:24:15
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Gapop 10.0 , Gapext 0.5
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seq length: 200000000
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1742
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Perfect score:
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: BASE, KATIN
APPLICANT: LEE, Xuri
APPLICANT: LEE, Xuri
APPLICANT: UTSLA, Marko
FILE OF INVENTION: THEREFOR, AND USES THEREOF
FILE REPERENCE: U16 Exiksson et al. 1064-44833
CURRENT APPLICATION NUMBER: 60/107,852
EARLIER FILING DATE: 1999-11-10
EARLIER FILING DATE: 1999-11-228
EARLIER FILING DATE: 1999-10-04
EARLIER FILING DATE: 1999-10-04
EARLIER FILING DATE: 1999-10-05
NUMBER OF SEQ ID NOS: 31
SOFTWARE: PATCHIN VET. 2.0
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US-09-706-968-2
US-09-723-749-2
US-09-823-033-2
US-10-140-002-286
US-09-468-647-2
US-09-438-046-19
US-09-438-046-2
US-09-468-647-29
US-09-285-385-2
US-09-285-385-2
US-09-285-385-2
US-09-285-385-2
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Sequence 6, Application US/09438046;
Patent No. 6706687;
GENERAL INFORMATION:
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ORGANISM: Homo sapiens
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169 LLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN
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APPLICANT: Gliberteson, Debra G.
APPLICANT: Hart-Charles E.
TITLE OF INVENTION: METHODS FOR PROMOTING GROWTH OF BONE,
TITLE OF INVENTION: LIGAMENT AND CARTILAGE USING ZVEGF4
FILE REFERENCE: 00-28
CURRENT APPLICATION NUMBER: US/09/540,224
CURRENT FILING DATE: 2000-03-31
EARLIER APPLICATION NUMBER: US 60/180,169
EARLIER FILING DATE: 2000-02-04
                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Gao, Zeren
APPLICANT: Hart, Charles E.
APPLICANT: Hart, Charles E.
APPLICANT: Sheppard, Paul O.
APPLICANT: Shepmard, Paul O.
APPLICANT: Sheemaker, Kimberly E.
APPLICANT: Glibertson, Debra G.
APPLICANT: Glibertson, Debra G.
APPLICANT: Glibertson, CROWTH FACTOR HOWOLOG ZVEGF3;
FILE REFERENCE: 98-60
CURRENT APPLICATION NUMBER: US/09/457,066
CURRENT FILING DATE: 1999-12-07
NUMBER OF SEQ ID NOS: 50
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     349 LVDIQLDHHERCDCICSSRPPR 370
                            301 LVDIQLDHHERCDCICSSRPPR 322
                                                        343 LVDIQLDHHERCDCICSSRPPR 364
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; Patent No. 6432673
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US-00-540-224-2
; Sequence 2, Application US/09540224
; Patent No. 6468543
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ORGANISM: Homo sapiens
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Matches 322; Conser
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US-09-457-066-37
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APPLICANT: Wood, William
APPLICANT: Chang, Zemin
APPLICANT: Chang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330R1C59
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Prior Application removed - See Palm or File Wrapper
NUMBER OF SEQ ID NOS: 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/10/140,002 CURRENT FILING DATE: 2002-05-06
                                                                                                                                                                                                                                                                            301 LVDIQLDHHERCDCICSSRPPR 322
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Patent No. 6725730
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Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
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Smith, Victoria
Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Baker, Kevin P.
APPLICANT: Beresini, Maureen
APPLICANT: DeForge, Laura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Desnoyers, Luc
Filvaroff, Ellen
Gao, Wei-Qiang
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Matches 322, Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
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  CRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS 168
                                                                 229 PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Gao, Zeren
APPLICANT: Gao, Zeren
APPLICANT: Hart, Charles E.
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Paul O.
APPLICANT: Shemes W.
TITLE OF INVENTION: GROWTH PACTOR HOMOLOG ZVEGF3
FILLE REPERBURE: 98-60C1
CURRENT APPLICATION NUMBER: US/09/706,968
CURRENT FILING DATE: 2000-11-06
RICH APPLICATION NUMBER: US/09/541,752
PRIOR FILING DATE: 2000-03-31
NUMBER OF SEQ ID NOS: 50
SOFTWARE: FastSEQ for Windows Version 3.0
SEQUID NO 37
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Matches 322; Conservative
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ORGANISM: Homo sapiens
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SQUENCE 2, Application US/09564595D

FRACTION. 649568

GENERAL INFORMATION:

APPLICANT: Glibert, Teresa

APPLICANT: Bheppard, Paul O.

TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZVEGF4

FILE REFERENCE: 99-19

CURRENT FILING DATE: 200-05-03

FRIOR FILING DATE: 1999-05-03

PRIOR FILING DATE: 1999-05-03

PRIOR FILING DATE: 1999-11-10

PRIOR PRILING DATE: 1999-11-10

FRIOR APPLICATION NUMBER: US 60/164,463

PRIOR FILING DATE: 1999-11-10

FRIOR FILING DATE: 1999-11-10

SRIOR FILING DATE: 2000-02-04

NUMBER OF SEQ ID NOS: 57

SOFTWARE: FREESEQ for Windows Version 4.0

SEQ ID NO 2
                                                                                                                                                                         ; Score 1742; DB 4;
; Pred. No. 1.8e-172;
0; Mismatches 0;
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NUMBER OF SEQ ID NOS: 9 SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                                                                         Query Match
100.0%;
Best Local Similarity 100.0%;
Matches 322; Conservative 0;
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Matches 322; Conservative
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                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
US-09-540-224-2
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                                          SEQ ID NO 2
LENGTH: 370
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LLEDFOPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN 180
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Sequence 8, Application US/09438046

Patent No. 6706687

GENERAL INFORMATION:

APPLICANT: EXEXSON, U1f

APPLICANT: LEE, Xuri

APPLICANT: DUTELA, Marko

APPLICANT: PALTYLO, Kari

APPLICANT: ALITALO, Kari

APPLICANT: ALITALO, Kari

APPLICANT: ALITALO, Kari

APPLICANT: ALITALO, Rari

APPLICANT: ALITALO, Rari

APPLICANT: ALITALO, Rari

APPLICANT: ALITALO, Rari

APPLICANT: DINVENTION: PLATELET-DERIVED GROWTH FACTOR D, DI

TITLE OF INVENTION: PLATELET-DERIVED GROWTH FACTOR D, TITLE OF INVENTION: PLATELED.

TITLE OF INVENTION: PLATELET-DERIVED GROWTH FACTOR D, DI

TITLE OF INVENTION NUMBER: 60/107, 852

EARLIER APPLICATION NUMBER: 60/113, 997

EARLIER APPLICATION NUMBER: 60/113, 997

EARLIER PRILNG DATE: 1999-10-08

EARLIER PRILNG DATE: 1999-10-06

EARLIER PRILNG DATE: 1999-10-05

EARLIER PRILNG DATE: 1999-10-05

EARLIER PRILNG DATE: 1999-10-05

EARLIER PRILNG DATE: 1999-10-05

EARLIER PLING DATE: 1999-10-05
                                                                                                                                                                                                                                                                               Score 1742; DB 4;
Pred. No. 1.8e-172;
0; Mismatches 0;
; NUMBER OF SEQ ID NOS: 5
; SCPTWARE: PastSEQ for Windows Version 3.0
; SEQ ID NO 5
; LENGTH: 370
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-823-033-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             349 LVDIQLDHHERCDCICSSRPPR 370
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Best Local Similarity 100.
Matches 322; Conservative
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SEQ ID NO 9
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; ORGANISM: Homo sapiens
US-09-438-046-8
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                                                                           Sequence 2. Application US/09808972
| Sequence 2. Application US/09808972
| Patent No. 6630142
| Patent No. 6630142
| APPLICANT: Hart, Charles E. APPLICANT: Topouzis, Stavros | APPLICANT: Topouzis, Stavros | APPLICANT: Topouzis, Stavros | TITLE OF INVENTION: DISORDERS | TITLE OF INVENTION: DISORDERS | TITLE OF INVENTION: DISORDERS | FILE REFERENCE: 00-79 9608,972 | CURRENT FILING DATE: 2001-03-14 | PRIOR APPLICATION NUMBER: US 60/235,295 | PRIOR APPLICATION NUMBER: US 60/235,295 | PRIOR PILING DATE: 2000-09-26 | PRIOR PILING DATE: 2000-05-03 | PRIOR FILING DATE: 2000-05-04 | PRIOR FILING DATE: 2000-05-04 | PRIOR FILING DATE: 1999-11-00 | PRIOR PRIOR PILING DATE: 1999-11-00 | PRIOR PILING DATE: 1999-11-00 | PRIOR PILING DATE: 1999-11-00 | PRIOR PILING DATE: 1999-105-03 | NUMBER OF SEQ ID NOS: 13 | NUMBER OF SEQ ID NOS: 13 | NUMBER OF SEQ ID NOS: 13 | SOFFWARE: PSELSEQ FOR WINGONE DATE: PSEL
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Sequence 5, Application US/09823033
GENERAL INFORMATION:
APPLICANT: Hart, Charles E.
APPLICANT: Gilbertson, Debra G.
TITLE OF INVENTION: METHODS FOR PROMOTING GROWTH OF BONE,
TITLE OF INVENTION: LICAMENT AND CARTILAGE
FILE REFERENCE: 00-12
CURRENT APPLICATION NUMBER: US/09/823,033
CURRENT FILING DATE: 2001-03-29
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ORGANISM: Homo sapiens
US-09-808-972-2
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Best Local Similarity
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US-09-823-033-5
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121 LLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN 180
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289 NAVFPPRCLLVQRCGGNCGCGTVNWKSCTCSSGKTVKKYHEVLKFEPGHFKRRGKAKNMA 348
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86.6%; Pred. No. 1.2e-153;
ive 23; Mismatches 20; Indels
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APPLICANT: Topouzis, Stavros
APPLICANT: Topouzis, Stavros
APPLICANT: Gilbertson, Debra G.
APPLICANT: METHOD OF TREATING FIBROPROLIFERATIVE
TITLE OF INVENTION: DISORDERS
FILE REFERENCE: 00-79
                                                                                                                                                                                                                     APPLICANT: Glibert, Teresa
APPLICANT: Glibert, Teresa
APPLICANT: Glibert, Teresa
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Paul O.
APPLICANTON: GROWTH FACTOR HOMOLOG ZVEGF4
FILE REFERENCE: 99-19
CURRENT APPLICATION NUMBER: US 09/304,216
PRIOR APPLICATION NUMBER: US 60/164,463
PRIOR APPLICATION NUMBER: US 60/164,463
PRIOR APPLICATION NUMBER: US 60/164,463
PRIOR APPLICATION NUMBER: US 60/164,169
PRIOR PILING DATE: 1999-11-10
PRIOR PILING DATE: 2000-02-04
NUMBER OF SEQ ID NOS: 57
SOFTWARE: FastSEQ for Windows Version 4.0
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                                     LVDIQLDHHERCDCICSSRPPR 322
                                                             LVDIQLDHHERCDCICSSRPPR 370
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US-09-564-595D-53
; Sequence 53, Application US/09564595D
; Batten No. 6495668
; GENERAL INFORMATION:
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Patent No. 6630142
GENERAL INFORMATION:
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Matches 279; Conservative
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                                                                                                        49 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI 108
                                                                                                                                                                          CRYDEVEVEDISETSTIIRGRACGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS 168
                                                                                                                                                                                                                                                     LEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN 228
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   Length 370;
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                                                                             1 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDI
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Patent No. 6468543

GENERAL INFORMATION:

APPLICANT: Glaries G.

TITLE OF INVENTION: LIGAMENT AND CARTILAGE USING ZVEGF4

FILE REPRENCE: 00-28

CURRENT APPLICATION NUMBER: US/09/540,224

CURRENT PILING DATE: 2000-03-31

EARLIER FILING DATE: 2000-03-31

SARLIER FILING DATE: 2000-03-4

NUMBER OF SEQ ID NOS: 9

SOFTWARE: PASSEC for Windows Version 3.0
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                                       Indels
2; DB 4;
1.8e-172;
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86.6%; Pred. No. 1...
23; Mismatches
                                       0; Mismatches
 100.0%; Score 1742; 100.0%; Pred. No. 1.
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US-09-540-224-4
                     1 Similarity
322; Conserv
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   Query Match
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; OTHER INFORMATION: fusion polypeptide US-09-564-595D-56
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ORGANISM: Artificial Sequence
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298 DVALEHHEECDCVC 311
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Best Local Similarity 80.0%
Matches 256; Conservative
                                                                                Query Match
Best Local Similarity 83.8
Matches 263; Conservative
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; Pred. No. 1.2e-153;
23; Mismatches 20;
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APPLICANT: Hart, Charles E.
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZVEGF4
PILE REFERENCE: 99-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REPRENCE. 37-12
CURRENT PELICATION NUMBER: US/09/564,595D
CURRENT FILING DATE: 2000-05-03
PRIOR PELING DATE: 1999-034,216
PRIOR PILING DATE: 1999-05-03
PRIOR PILING DATE: 1999-11-10
PRIOR PILING DATE: 1999-11-10
PRIOR PILING DATE: 1999-11-10
PRIOR PILING DATE: 2000-04
NUMBER OF SEQ ID NOS: 57
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 56
LENGTH: 317
CURRENT APPLICATION NUMBER: US/09/808,972
CURRENT FILING DATE: 2001-03-14
PRIOR APPLICATION NUMBER: US 60/235,295
PRIOR FILING DATE: 2000-09-26
PRIOR APPLICATION NUMBER: US 09/564,595
PRIOR PLING DATE: 2000-05-03
PRIOR PLING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/180,169
PRIOR PRILING DATE: 1999-11-10
PRIOR APPLICATION NUMBER: US 60/134,463
PRIOR PLING DATE: 1999-11-10
PRIOR FILING DATE: 1999-11-10
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GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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Best Local Similarity 86.6%
Matches 279; Conservative
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ORGANISM: Mus musculus
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US-09-564-595D-56
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64 DEVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYSLLE 123
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                                                                                                               4 RDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRY
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                                                             Gaps
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     Length 317;
80.5%; Score 1403; DB 4; Length 3
83.8%; Pred. No. 2.5e-137;
Live 14; Mismatches 33; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INC. 0220000

GENERAL INCORMATION:
APPLICANT: Gilbert, Teresa
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZVEGF4
FILE REFERENCE: 99-19
CURRENT APPLICATION NUMBER: US 09/304,216
FRICR APPLICATION NUMBER: US 09/304,216
FRICR APPLICATION NUMBER: US 09/304,463
FRICR APPLICATION NUMBER: US 06/164,463
FRICR PILING DATE: 1999-10-10
FRICR PILING DATE: 1999-11-10
FRICR PILING DATE: 2000-02-04
NUMBER OF SEQ ID NOS: 57
SOFTWARE: FASTERO for Windows Version 4.0
SEQ ID NO 55
LENGTH: 316
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; Sequence 55, Application US/09564595D
; Patent No. 6495668
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177 SWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRIANDDAKRYSCTPRNYSVNIREELKLANV 236
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                                                                                                                                    VFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALV 302
                                                                                                                                                       237 VFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALV 296
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    165 RWQLDLEDLYRPTWQLLGKAFVFGRKSRVVDLNLLTEEVRLYSCTPRNFSVSIREELKRT 224
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                                                                                                                                                                                                                                                                                                            US-US-US-US-US-US)

Sequence 57, Application US/09564595D

Patent NO. 649568

GENERAL INFORMATION:
APPLICANT: Gilbert, Teresa

APPLICANT: Att, Charles E.
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZVEGF4

FILE REPRENCE: 99-19
CURRENT APPLICATION NUMBER: US/09/564,595D

CURRENT FILING DATE: 1999-05-03

PRIOR PILING DATE: 1999-05-03

PRIOR APPLICATION. NUMBER: US 09/304,216

PRIOR PILING DATE: 1999-05-03

PRIOR FILING DATE: 1999-05-03

PRIOR FILING DATE: 1999-05-04

NUMBER OF SEQ ID NOS: 57

SOFTWARE: FastSEQ for Windows Version 4.0

LENGTH: 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: fusion polypeptide US-09-564-595D-57
                                                                                                                                                                                                                         DIQLDHHERCDCICSSRPPR 316
                                                                                                                                                                                                    303 DIQLDHHERCDCICSSRPPR 322
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| |:||| ||||
LTDVALEHHEECDCVC 297
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                         SULT 15
-09-564-595D-57
                                                                                                                                    243
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Search completed: October 29, 2004, 23:33:57 Job time : 40 secs

133 INWESVTSSISGVSYNSPSVTDPTLIADALDKK 165 

13 NGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVEDIS

72

Gaps

10;

Length 1070;

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C; Superfamily: dorsal-ventral patterning protein tolloid; astacin homology; Clr/Cl8 repee
                                               Query Match 8.6%; Score 149; DB 2; Length 10 Best Local Similarity 28.1%; Pred. No. 0.002; Matches 43; Conservative 34; Mismatches 66; Indels
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A,Cross-references: UNIPROT:P91972; EMBL:U57369; NID:g1899041; PID:g1899042; PIDN:AAC474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Molecule type: mRNA
Residues: 1-1464 <FIN>
Cross-references: UNIPROT:024132; EMBL:U34777; NID:g1002985; PIDN:AAC47015.1; PID:g100
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C;Species: Aplysia californica (California sea hare)
C;Species: Aplysia californica (California sea hare)
C;Accession: T31069
R;Liu, Q.R.; Hattar, S.; Endo, S.; MacPhee, K.; Zhang, H.; Cleary, L.J.; Byrne, J.H.; Es
A;Title: A developmental gene (Tolloid/BMP-1) is regulated in Aplysia Neurons by treatme
A;Reference number: Z20965; MUID:98007484; PMID:8987797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 19-Jul-1996 #Bequesser. C.A.; Blackman, R.K.; Padgett, R.W. C;Accessian: S5984 R;Finelli, A.L.; Xie, T.; Bossie, C.A.; Blackman, R.K.; Padgett, R.W. Genetics 141, 271-281, 1995 A;Finelli, A.L.; S58984; Auroloid/BMP-1 homologue that is essential for Drosophila A;Reference number: $58984; MUID:96042912; PMID:8536976
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            development protein tolkin (EC 3.4.24.-) - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 19-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 09-Jul-2004
                                                                                   -- 117
                                                                                                                                                                                                                                                                     YYSLLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLK 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14 GYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVEDISE 73
                                                       69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AjGene: tolkin
AjGenes references: PlyBase: PBgn0004885
C;Keywords: hydrolase; metalloproteinase; zinc
C;Keywords: hydrolase; metalloproteinase; zinc
P;529-722/Domain: astacin homology <AST>
P;958-993/Domain: EGF homology <EGF>
P;118-1153/Domain: EGF homology <EGF>
P;614,618,624,673/Binding site: zinc (His, His, His, Tyr) #status predicted
P;615/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                         546 QFSLPVDDTP-TISMLHPRAIALDVCGMAPMTPKWWLPRIVCG------E
                                                    10 VKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVE
     Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74 TSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYS 120
  72; Indels
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  36; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                              EASPNSWPWQVQIFFL----RIFH 608
                                                                                                                                                                                                                                                                                                                                                                          178 YFNPESWOEDLENMYLDTPRYRGRSYH 204
  54; Conservative
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A; Residues: 1-1524 < YAN>
A; Cross-references: UNIPROT:091674; EMBL:U81290; NID:g2981640; PID:g2981641; PIDN:AAC2471
C; Superfamily: tryosin related polyprotein; trypsin homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polyprotein - African clawed frog (Species: Kanopus laevis (African clawed frog) (Species: Asnopus laevis (African clawed frog) (Species: 22-oct-1999 #sequence_revision 22-oct-1999 #sequence_revision (Species: 73037) (Species: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AyMolecule type: mRNA
A,Molecule type: mRNA
A,Molecule type: mRNA
A,Residues: 1-927 <TAK>
A,Cross-references: GB:D10467; GB:D01077; NID:g222962; PIDN:BAA01260.1; PID:g222963
A,Cross-references: GB:D10467; GB:D01077; NID:g222962; PIDN:BAA01260.1; PID:g222963
A,Experimental source: tadpole, brain
A;Experimental source: tadpole, brain
A;Experimental source: This protein has morifs homologous to complement components CIr and CIs and to CC
C;Coment: This protein is a neuronal cell surface molecule involved in the neuronal recc
C;Coment: This protein is a neuronal cell surface molecule involved in the neuronal recc
C;Coment: This protein is a neuronal CIP/CIS repeat homology; discoidin I amino-terminal homology;
F;12-17Domain: GIP/CIS repeat homology <CIRI>
F;22-927/Product: As antigen #status predicted <A5A>
F;27-138/Domain: CIP/CIS repeat homology <CIRI>
F;27-424/Domain: discoidin I amino-terminal homology <NDN>
F;46-812.Domain: discoidin I amino-terminal homology <NDN>
F;66-812.Domain: Hand homology <MAN>
F;66-812.Domain: transmembrana #status predicted <TMM>
F;861-883/Domain: transmembrana #status predicted <TMM>
F;861-883/Domain: transmembrana #status predicted <TMM>
F;150,261,300,523,844/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JQ0948
As antigen precursor - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Species: Xenopus laevis (African clawed frog)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 16-Jun-2000
C;Accession: JH0466; JQ0948
C;Accession: JH0466; JQ0948
Nerdamin, S.; Hirata, T.; Agata, K.; Mochii, M.; Eguchi, G.; Fujisawa, H.
Neuron 7, 295-107, 1991
A;Title: The AS antigen, a candidate for the neuronal recognition molecule, has homologie
A;Reference number: JH0466; MUID:91337458; PMID:1908252
1049 LYDYTDNFGMLSSPNFPNNYPSNWECIYRITVGLNQQIALHFTDFTL-EDYFGSQCVDFV 1107
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Pred. No. 0.00084;
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A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
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C; Species: Rattus norvegicus (Norway rat)
C; Species: Rattus norvegicus (Norway rat)
C; Accession: T08618
C; Accession: T08618
C; Accession: T08618
C; Accession: T08618
A; Title: The intrinsic factor-vitamin B12 receptor and target of teratogenic antibodies
A; Reference number: Z16459; MUID: 98148073; PMID: 9478979
A; Accession: T08618
A; Reference number: Z16459; MUID: 98148073; PMID: 9478979
A; Scatus: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Residues: 1.3623 < MOE>
A; Molecule type: mRNA
A; Residues: 1.3623 < MOE>
A; CGenetics:
A; Genetics:
A; Geneti
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----ETNWESVTSSISGVSYN-SPSVTDPTLIADALDKKIAEFD 170
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             255
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                                       F;624-740/Domain: CIr/Cls repeat homology <CIR3>
F;747-782/Domain: EGF homology <EG2>
F;747-782/Domain: CIr/Cls repeat homology <CIR4>
F;940-1013/Domain: CIr/Cls repeat homology <CIR5>
F;221,225,231,280/Binding site: zinc (His, His, His, Tyr) #status predicted
F;222/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                117 IYYSLLEDFQPAAAS----ETNWESVTSSISGV-----SYNSPSVTD--PTLIADAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             219 AKRYSCTPRNYSVNIREELKLANVVFFPRCLL------VQRCG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16 VQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVEDISETS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LCINTLGSYQCGCRAGYELQANGKTCEDACGGVVDATKSNGSLYSPSYPDVYP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels 103; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36;
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1 Similarity 29.3%; Pred. No. 0.00016;
54; Conservative 29; Mismatches 65; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFK------
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45; Mismatches 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                  10.0%; Score 174.5; DB 1; 24.2%; Pred. No. 2.1e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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Best Local Simi
Matches 84;
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Best Local S:
Matches 54
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Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                         A; Accession: T09456
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                                                                                                                                                                                                                                                                            F;707-742/Domain: BGF homology <EG2>
F;707-742/Domain: BGF homology <EG2>
F;747-856/Domain: CIr/Cls repeat homology <CIR4>
F;860-973/Domain: CIr/Cls repeat homology <CIR5>
F;860-973/Domain: CIr/Cls repeat homology <CIR5>
F;91.142.332,330-main: CIr/Cls repeat homology <CIR5>
F;91.142.332,330-main: CIr/Cls repeat homology <CIR5>
F;91.142.332,330-main: CIr/Cls repeat homology <CIR5>
F;163-319,185-205,322-348,375-397,435-461,488-510,551-563,559-572,574-587,591-617,644-66
F;213,217,223,272/Binding site: zinc (His, His, His, Tyr) #status predicted
Keywords: alternative splicing; beta-hydroxyasparagine; bone; calcium; duplication; gl
                                     :1-22/Domain: signal sequence #status predicted <SIG>
:23-986/Product: procollagen C-endopeptidase tolloid-like splice form #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       reJ
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:Cross-references: UNIPROT:P98063; GB:L24755; NID:g439606; PIDN:AAA37306.1; PID:g439607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    procollagen C-endopeptidase (EC 3.4.24.19) precursor, tolloid-like splice form - mouse C;Species: Mus musculus (house mouse) C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004 C;Accession: 149540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Superfamily: procollagen C-endopeptidase; astacin homology; Clr/Cls repeat homology; C; Superfamily: procollagen C-endopeptidase; zinc C; Keywords: hydrolase; metalloproteinase; zinc F; 556-592/Domain: astacin homology <a href="Assacration-repeat">Assacration-repeat</a> his, His, His, His, Tyr) #status predicted <a href="Assacration-repeat">Assacration-repeat</a> his, His, His, Tyr) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Accession: 149540
7; Accession: 149540
7; Endergawa, M.; Noboru, S.; Hogan, B.L.M.; Jones, C.M.
7; Title: Embryonic expression of mouse bone morphogenetic protein-1 (BMP-1) which is Accession: 149540; MUID:94229342; PMID:8174772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P;214/Active site: Glu #status predicted
F;565,720/Modified site: erythro-beta-hydroxyasparagine (Asn) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11 KGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVED 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLTADSKLHGKFCG-SEKPEVITSQYNNMRVEFKSDN-TVSKKGFKAHF 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71 ISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYY 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10.8%; Score 187.5; DB 2; Length 991; 39.4%; Pred. No. 1.9e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 187.5; DB 1;
Pred. No. 1.9e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43;
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                                                                                          F;330-321/Domain: accain homology cAST>
F;322-431/Domain: CIr/Cls repeat homology cCIRI>
F;435-54/Domain: CIr/Cls repeat homology cCIRI>
F;551-780/Domain: EGF homology cKG1>
F;551-700/Domain: CIr/Cls repeat homology cCIRI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        39.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 39.4
Matches 43; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
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A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Status: 1-3623 «KOZ»
A;Residues: 1-3623 «KOZ»
C;Genetics:
A;Rep position: 10pl2
C;Genetics: A;Rep position: 10pl2
C;Superfamily: intrinsic factor-Bl2 receptor cubilin; EGF homology
C;Keywords: receptor; vitamin Bl2 uptake
F;1-24/Domain: signal sequence #status predicted «SIG»
F;25-3623/Product: intrinsic factor-Bl2 receptor #status predicted «MAT»
F;35-3623/Product: intrinsic factor-Bl2 receptor #status predicted «MAT»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dorsal-ventral patterning protein tolloid (EC 3.4.24.-) - fruit fly (Drosophila melanogas C;Species: Drosophila melanogaster C;Species: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
R;Kozyraki, R.; Kristiansen, M.; Silahtaroglu, A.; Hansen, C.; Jacobsen, C.; Tommerup, N. Blood 91, 3593-3600, 1998
A;Title: The human intrinsic factor-vitamin B12 receptor, cubilin: Molecular characterize
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A)Gene: FlyBase:tld
A)Gross-references: FlyBase:FBgn0003719
C;Superfamily: dorsal-ventral patterning protein tolloid; astacin homology; Clr/Cls repet C;Superfamily: dorsal-ventral patterning protein tolloid; astacin homology clr/Cls repet F;156-329/Domain: astacin homology cAST>
F;156-329/Domain: Clr/Cls repeat homology cLRl>
F;466-578/Domain: Clr/Cls repeat homology cLRl>
F;585-620/Domain: Clr/Cls repeat homology cLRl>
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A, Molecule type: mRNA
A,Residues: 1-1057 - (SHI>
A, Cross-references: UNIPROT: P25723, GB:M76976, NID:g157305, PIDN: AAA28491.1; PID:g157306
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C;Accession: A39288
C;Accession: A39288
C;Shinell, M.J.; Ferguson, E.L.; Childs, S.R.; O'Connor, M.B.
Cell 67, 469-481, 1991
A;Title: The Drosophila dorsal-ventral patterning gene tolloid is related to human bone A;Reference number: A39288; MUID:92034970; PMID:1840509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      992 VYDTDSETSL---GRYCG-KSIPPSLTSSGNSLMLVFVTDS-DLAYEGFLINYEAISAAT 1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----VHFTNFSLEEAIGNYYTDFLEIRDGGYEKSPLLGIFYGSNLPPTIISHSNKLW 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120 SLLEDFQPAAASET-----NWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEF 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -HDRK-- 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           935 ILTESTGTIQSPGHPNVYPHGINCTWHILVQPNHLIHLMFET-FHLEFHYN--CTNDYLE 991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68 VEDI-SETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYY----- 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           208 SKVDLDRLNDDAKRYSCTPRNYSVNIREELKLANVVFFPRCLLVQRCGGNCGCGTVNWRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 IOVKGNGYVOSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       268 CICNSGKTVKKYHEVLQFEPGHI----KRRGRAKTMALVDIQLDHHERC 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1047 ACLODYTDDLGTFTSPNFPNNYPNNWECI------YRI-TVRTGQLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
10.6%; Score 184.5; DB 2; Length :
Best Local Similarity 24.3%; Pred. No. 1.7e-05;
Matches 85; Conservative 34; Mismatches 120; Indels
                                                                                                                                                             ion.
A;Reference number: Z16677; MUID:98241400; PMID:9572993
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A; pescription: catalyzes hydrolysis of the carboxyl-terminal propeptide of collagen type c; Superfamily: procollagen C-endopetidase; astacin homology; CIr/CIs repeat homology; E/Cr/CIs repeat homology; E/Cr/CIs repeat homology; E/1-22/Domain: signal sequence #status predicted <SIG>
F;122/Domain: signal sequence #status predicted <SIG>
F;130-231/Domain: satacin homology <AST>
F;1310-231/Domain: cIr/CIs repeat homology <CIRI>
F;135-341/Domain: CIr/CIs repeat homology <CIRI>
F;551-100/Domain: CIr/CIs repeat homology <CIRI>
F;551-100/Domain: CIr/CIs repeat homology <CIRI>
F;551-100/Domain: CIr/CIs repeat homology <CIRI>
F;51-100/Domain: CIR/CIs repe
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A; Residues: 1-702, EKRPALQPPRGRPHQLKFRVQKRNRTPQ' <WOZ>
A; Cross-references: UNIPROT: P13497; GB: M22488; NID: g179499; PIDN: AAA51833.1; PID: g179500
R; Takhara, K.; Lyons, G.E.; Greenspan, D.S.
A; Title: Bone morphogenetic protein-1 and a mammalian tolloid homologue (mTld) are encode
A; Feference number: A58788; MUID: 95096114; PMID: 7798260
                                R.W.; Eewi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         procollagen C-endopeptidase (EC 3.4.24.19) precursor, tolloid-like splice form - human NyAlternate names: bone morphogenic protein 1, tolloid-like splice form - human Systemates: Homo appins (man)
C;Decess: Homo appins (man)
C;Date: 28-Mar-1998 #sequence_revision 09-Apr-1998 #text_change 09-Jul-2004
C;Accession: A37278; BS8788
S;Mozney, J. M.; Rosen, V.; Celeste, A.J.; Mitsock, L.M.; Whitters, M.J.; Kriz, R.W.; He Science 242, 1528-1534, 1988
A;Title: Novel regulators of bone formation: molecular clones and activities.
A;Reference number: A37278; MUID:89072730; PMID:3201241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'n
                                Celeste, A.J.; Mitsock, L.M.; Whitters, M.J.; Kriz,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               597 KLNGSITSPGWPKEYPPNKNCIWOLVAPTOYRISLOFD---PPETEGNDVCKYDFVEVRS 653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 70
                             R;Wozney, J.M.; Rosen, V.; Celeste, A.J.; Mitsock, L.M.; Whitters, M.J.; Kriz Science 242, 1528-1534, 1988 A;Title: Novel regulators of bone formation: molecular clones and activities. A;Title: Novel regulators of bone formation; molecular clones and activities. A;Reference number: A37278; MUID:89072730; PMID:3201241
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                               A;Molecule type: mRNA
A;Residues: 1-730 <WOZ>
A;Cross-references: GB:M22488; NID:g179499; PIDN:AAA51833.1; PID:g179500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: mRNA
A;Residues: 703-986 <TAK>
A;Cross-references: GB:L35279; NID:g619860; PIDN:AAC41710.1; PID:g619861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71 ISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYY 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            654 GLTADSKLHGKFCG-SEKPEVITSQYNNMRVEFKSDN-TVSKKGFKAHF 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10.8%; Score 187.5; DB 1; Length 730; ilarity 39.4%; Pred. No. 1.3e-06; Conservative 18; Mismatches 43; Indels 5
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A;Map position: 8p21-8p21
C;Function:
                                                                                                                                                                                                                                                                                                                                                                                          A; Cross-references: GDB:125203; OMIM:112264
   C; Accession: A37278; E58788
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Best Local S
Matches 43
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R;Maeno, M.; Xue, Y.; Wood, T.I.; Ong, R.C.; Kung, H.
Rene 134, 257-261, 1993
A;Title: Cloning and expression of cDNA encoding Xenopus laevis bone morphogenetic prote A;Reference number: JC2218; MUID:94085787; PMID:8262384
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   11;
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                                                                                                                                                                                                                                                                                                                                                                                                     712 SHLSGLELLLCPHALVDTVPAPPSALHGDTHAHTHTHVHTHCPIAQETCRGPPLGASRLS 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----PQ------EGSYLDFWDTHRG----DPKPR----RRRKSLKTF 810
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                                                                                                                                                                                                                                                           -DFQPAAASETNWESVTSSISGVSYNSPSVTD----PTLIADALD 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                164 KKIAEFDTVEDLLKYFNPESWQEDLENMYLD-TPRYRGRSYHDRKSKVDLDRLNDDAKRY 222
                                                                                                                                             KLNGSITSPGWPKEYPPNKNCIWOLVAPTOYRISLOFD---FFETEGNDVCKYDFVEVRS 653
                                                                                                                                                                                                                   71 ISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKI-YYSLLE----- 123
                                                                            70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVED 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          procollagen C-endopeptidase (EC 3.4.24.19) - African clawed frog (clone 22AN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    procollagen C-endopeptidase (EC 3.4.24.19) precursor, splice form BMF1 - hum N;Alternate names: bone morphogenic protein 1 (BMF1) (Species: Homo sapiens (man) (C;Species: Homo sapiens (man) (C;Species: 16-Sep-1992 #sequence_revision 03-Aug-1995 #text_change 18-Jun-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        site: erythro-beta-hydroxyasparagine (Asn) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N;Alternate names: bone morphogenic protein 1
C;Species: Xenopus laevis (African clawed frog)
C;Date: 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 09-Jul-2004
                                                                        KGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVED
       54; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
   89; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10.9%; Score 189.5; DB 2
42.5%; Pred. No. 8.5e-07;
ive 18; Mismatches 36
       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F;528/Modified site: ervether bredicted
   33;
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Best Local Similarity 42.5.
-hea 45; Conservative
       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     772 PQGPGHLTLA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          223 SCTPRNY 229
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71;
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       Matches
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procollagen C-endopeptidase (EC 3.4.24.19) precursor, splice form HIS - human N;Alternate names: bone morphogenic protein splice form BMP-1/His C;Species: Homo sapiens (mail) C;Date: 28-Mar.1998 #text_change 18-Jun-1999 C;Accession: A37278; A58788 C;Accession: A37278; A58788 R;Wozney, J.M.; Rosen, V.; Celeste, A.J.; Mitsock, L.M.; Whitters, M.J.; Kriz, R.W.; Hewj S;Sience 242, 1528-1534, 1988 A;Title: Novel regulators of bone formation: molecular clones and activities. A;Reference number: A37278; MUD:89072730; PMID:3201241 A;Accession: A37278; MUD:89072730; PMID:3201241 A;Accession: A37278; MUD:99792730; PMID:3201241 A;Cross-references: GB:M22488; NID:9179499; PIDN:AA51833.1; PID:g179500 R;Takahara, K.; Lyons, G.E.; Greenspan, D.S. A;Title: Bone morphogenetic protein-1 and a mammalian tolloid homologue (wTld) are encode A;Reference number: A58788; MUID:95096114; PMID:7798260 A;Accession: A58788 MUID:95096114; PMID:7798260 A;Residues: 703-823-47AK> A;Ccoss-references: GB:L35278; NID:g619423; PIDN:AAC41703.1; PID:g619424
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A,Cross-references: GDB:125203; OMIM:112264
A,Cross-references: GDB:125203; OMIM:112264
A,Cross-references: GDB:125203; OMIM:112264
A,Gene: GDB:125203; OMIM:112264
A,Cross-references: GDB:125203; OMIM:112264
A,Description: catalyzes hydrolysis of the carboxyl-terminal propeptide of collagen type (5;Puperfamily: procollagen C-endopeptidase; astacin homology; CIr/CIs repeat homology; E;1-22/Domain: signal sequence #status predicted <SIG>F;13-22/Domain: procollagen C-endopeptidase splice form HIS #status predicted <MAT>F;130-231/Domain: cir/CIs repeat homology <CIRI>F;312-431/Domain: CIr/CIs repeat homology <CIRI>F;51-541-57/Domain: CIr/CIs repeat homology <CIRI>F;51-581-500main: CIr/CIs repeat homology <CIRI>F;51-700/Domain: CIr/CIs repeat homology <CIRI>F;51-100/Domain: CIR/CIs repeat homol
                                                                                                                                                                                   169 FVEDFQPEAASETINWESVISSFSGVSYHSPSIIDPTLIADALDKIVAEFDIVEDLLKHFN 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 LLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA 300
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F;565/Modified site: erythro-beta-hydroxyasparagine (Asn) #status predicted
                                                                    49 LYQREENIQVISNGHVQSPRFPNSYPRNLLLITWWLRSQEKTRIQLSFDHQFGLEEAENDI
                                                                                                                                                                                                                                                                                                                                                                                                                                           PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA
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Pred. No. 5.5e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                349 LVDIQLDHHERCDCICSSRPPR 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 LVDIQLDHHERCDCICSSRPPR 322
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28.78;
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Best Local Similarity
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platelet-derived growth factor-D - mouse
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Accession: JCT998
R;Zhuo, Y.; Hoyle, G.W.; Zhang, J.; Morris, G.; Lasky, J.A.
Biochem: Biophys. Res. Commun. 308, 126-132, 2003
A;Title: A novel murine PDGP-D splicing variant results in significant differences in pe
A;Meference number: JCT998; PMID:12890490
A;Mesidue type: mRNA
A;Mesidue: 1-370 <ZHU>
C;Comment: This protein is a potent mesenchymal cell mitogen and chemoattractant involve
C;Genetics:
C;Genetics:
A;Micons: 42/2; 110/1; 170/2; 191/2; 258/2; 330/1; 334/2
C;Keywords: fibrosis; PDGF-D
                          Cispecies: Rattus norvegicus (Norway rat)
Cispecies: Rattus norvegicus (Norway rat)
Cipate: 30-Unn-2001 #sequence_revision 30-Unn-2001 #text_change 09-Jul-2004
CiAccession: JG7592
R;Hamada, T; Ui-Tei, K; Imaki, J; Miyata, Y.
Bicchem: Biophys. Res. Commun. 280, 733-737, 2001
A;Title: Molecular Cloning of SCDGF-B, a novel growth factor homologous to SCDGF/PDGF-C/A;Reference number: JG7591; MUID:21092670; PMID:11162582
A;Accession: JG7592
A;Molecule type: mRNA
A;Residues: 1-370 <HAM>
A;Cross-references: UNIPROT:Q9EQT1; DDBJ:AB052170
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F.1-17/Domain: secretory signal sequence #status predicted <SIG>
F.18-370/Product: spinal cord-derived growth factor-B #status predicted <MAT>
F.52-170/Region: CUB domain #status predicted
F.52-170/Region: homologous to platelet-derived growth factor/vascular endothelial grow
F.272-370/Region: conserved motif #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PESWOEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHBVLQFEPGHIKRRGRAKTWA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAVFPPRCLLVQRCGGNCGCGTLNWKSCTCSSGKTVKKYHEVLKFEPGHFKRRGKAKNMA 348
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDI
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86.6%; Pred. No. 7.5e-114;
iive 23; Mismatches 20; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90.0%; Score 1567; DB 2;
87.0%; Pred. No. 2.6e-114;
cord-derived growth factor-B precursor - rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22; Mismatches
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Best Local Similarity 86.6
Matches 279; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 280; Conservative
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Gaps

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GenCore version 5.1.6
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OM protein - protein search, using sw model

October 29, 2004, 23:24:02; Search time 39 Seconds (without alignments) 794.405 Million cell updates/sec Run on:

US-10-086-623-6 1742 1 LYRRDETIQVKGNGYVQSPR.....DIQLDHHERCDCICSSRPPR 322 Title:
Perfect score:
Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 Total number of hits satisfying chosen parameters:

283416 seqs, 96216763 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

PIR 79:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

STIMMARTES

IES	Description	spinal cord-derive	spinal cord-derive		ಶ	procollagen C-endo	procollagen C-endo	procollagen C-endo	procollagen C-endo	intrinsic factor-B	dorsal-ventral pat	intrinsic factor-B	A5 antigen precurs	polyprotein - Afri	development protei	tolloid-BMP-1 like	membrane-type friz	Ra-reactive factor	ם		sanko - human	hypothetical prote	TSG-6 homolog PS4	procollagen I C-pr	Ę	metalloproteinase	procollagen I C-pr		complement subcomp	
SUMMARIES		) 																												
SUM	ID	JC7591	JC7592	JC7998	A58788	JC2218	BMHU1	B58788	I49540	T09456	A39288	T08618	JQ0948	T30337	\$58984	T31069	JC7629	A59271	T30018	T30338	A59386	T22812	A47290	A55362	154763	871352	JH0403	A41735	Ĕ	JC7985
	DB	2	7	7	Н	7	-	-	7	0			н										α	Ŋ	н	7	7	(1	7	7
	Length	370	370	370	823	707	730	986	991	3623	1057	3623	927	1524	1464	1070	579	989	767	1004	2403	3871	276	449	669	597	402	277	705	533
٠	Query	99.7	90.0	9.68	11.1	٥.	10.8	ö	ö	10.6	10.0	6.6	٠	٠	•	9.8	8.4	8.4	8.1	8.0		•	•	7.8		•	7.5	7.4	7.3	7.2
	Score	1736	1567	1561	193	œ	187.5	187.5	œ	184.5	174.5	172			151.5	4	146.5	146	÷	138.5	13	137.5	m	9	135.5	33.	130.5	N	12	125.5
	Result No.		8	m	4	ស	9	7	æ	თ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

RESULT 2

tumor necrosis fac	ebnerin precursor	vascular endotheli	hypothetical prote	hypothetical prote	complement subcomp	enteropeptidase (Ē	complement subcomp	hensin - rabbit	enteropeptidase (E	enteropeptidase (E	mucin (clone pGM31	complement subcomp	hypothetical prote	CRP-ductin-alpha p	variant-specific s
JC6506	A57190	S69207	T33161	T21595	80208	A53663	CIHUS	T30549	A56318	A43090	S56745	JC6554	T21028	T42721	B71600
0	7	~	N	~	Н	-	Н	N	Н	٦	N	~	~	~	~
275 2	1290 2	419 2	321 2	333 2	695 1	1034 1	688 1	1594 2	1019 1	1035 1	504 2	694 2	555 2	2083 2	2197 2
	7.0 1290 2														
7.1		6.9	6.9	6.9	6.9	6.8	6.7	9.9	9.9	9.9	6.5	6.5		6.4	6.4

## ALIGNMENTS

RESULT. 1 JG7591 Spinal cord-derived growth factor-B precursor - human Spinal cord-derived growth factor-B precursor - human Spinal cord-derived growth factor-B precursor - human C; Species: Homo sapiens (man) C; Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 09-Jul-2004 C; Accession: JG7591 A; Hamada, T.; Ul-Tei, K.; Imaki, J.; Miyata, Y. Biochem. Biophys. Res. Commun. 280, 733-737, 2001 A; Reference number: JG7591; MUDD:21092670; PMID:11162582 A; Recenson: JG7591 A; Reference number: JG7591; MUDD:21092670; PMID:11162582 A; Residues: 1-370 cHAM> A; Residues: 1-370 cHAM> A; Residues: J-370 cHAM> A; Residues: UNIPROT:09BWV5; UNIPROT:09GZP0; DDBJ:AB033832 C; Genetics: C; Genetics: F;1-17/Domain: secretory signal sequence #status predicted <sig> F;18-370/Product: spinal cord-derived growth factor-B #status predicted <mat> F;18-370/Product: spinal cord-derived growth factor/vascular endothelial growt F;2-170/Region: CUB domain #status predicted F;2-170/Region: CUB domain #status #status predicted F;2-170/Region: CUB domain #statu</mat></sig>
Query Match 99.7%; Score 1736, DB 2; Length 370; Best Local Similarity 99.7%; Pred. No. 1.8e-127; Matches 321; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 LYRRDETIQVKGNGVVQSPRFDNSYPRNLLLTWRLASQENTRIQLVFDNQFGLEEAENDI 60 
 Qy 61 CRYDEVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDXFVAKPGFKIYYS 120 
 QY 121 LLEDEQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN 180 
 OY 181 PESWQEDLENWYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA 240 
 Qy 241 NVVFFPRCIIVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA 300
 OY 301 LVDIQLDHHERCDCICSSRPPR 322 

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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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OM protein - protein search, using sw model

October 29, 2004, 23:15:59; Search time 191 Seconds (without alignments) 970.003 Million cell updates/sec Run on:

Title: Perfect score: Sequence:

US-10-086-623-6 1742 1 LYRRDETIQVKGNGYVQSPR.....DIQLDHHERCDCICSSRPPR 322

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1825181 seqs, 575374646 residues Searched:

1825181 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

UniProt\_02:\*
1: uniprot\_sprot:\*
2: uniprot\_trembl:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

	Description	Q9bwv5 homo sapien		Q9gzp0 homo sapien	Q9eqt1 rattus norv		Q6v9h4 oryctolagus	œ		Q9i946 gallus gall			Q9egx6 rattus norv	Q9jhv8 mus musculu	Q9ul22 homo sapien	Q9nral homo sapien	Aaq88857 homo sapi	Q8k429 rattus norv	P98070 xenopus lae			Q9z135 rattus norv	Q6p550 mus musculu	Aah63079 mus muscu	P13497 homo sapien	P98063 mus musculu	Q6nzm2 mus musculu	യ	homod	Q9uq00 homo sapien	xenol	Q71c53 homo sapien
SUPERAKIES	ID .	Q9BWV5	AAQ89474	Q9GZP0	Q9EQT1	Q92517	Q6V9H4	AAQ24382	Q8K2L3	091946	Q9QY71	Q8CI19	Q9EQX6	Q9JHV8	Q9UL22	Q9NRA1	AAQ88857	Q8K429	BMP1 XENLA	Q919 <u>2</u> 5	057381	Q9Z135	Q6P550	AAH63079	BMP1 HUMAN	BMP1_MOUSE	Q6NZM2	AAH66062	Q9Y6L7	000060	Q8J128	Q7LC53
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* Query	Match	100.0	100.0	100.0	٥.	89.6	85.7	85.7	55.4	43.1	43.1	٠.	٠.	42.5	42.5		42.5		。	ö	ö	ö	10.8		10.8	٠	10.8	10.8	10.7	10.7	10.6	10.6
	Score	1742	1742	1742	1567	1561	1493	1493	965	751.5		748.5	742.5	740.5	739.5	739.5	739.5	632	189.5	189.5	188.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	186.5	186.5	185	184.5
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060494 Q9WVM6 TLD_BRARE	Q75UQ6 BAD01492 Q6T495 AAR99509	Q9TU53 Q6T869 AAR99506 Q6RT22	Q6T870 AAR89616 AAR99505
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## ALIGNMENTS

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RESULT 2
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DA AA089474
DD 02-M
DT 02-M

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241 NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTWA 300
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                                                      Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J., Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P., Baton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S., Heldens A., Kim M.S., Klimowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J., Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A., Van G., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
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                                                                                                                                                                                                                                                              The Secreted Protein Discovery Initiative (SPDI), a Large-Scale Effort to Identify Novel Human Secreted and Transmembrane Proteins: Bioinformatics Assessment."; Genome Res. 13:2265-2270(203).

EMBL; AY359116; AAQ89474.11. -. SEQUENCE 364 AA; 42166 MW; 245C53E8DDEA9EAC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2001 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Spinal cord-derived growth factor-B (MSTP036) (Platelet-derived factor D) (Iris-expressed growth factor long form).
Name=hSCDGF-B; Synonyms=IEGF, PDGFD;
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Hamada T. Ui-Tei K., Imaki J., Miyata Y.;
"Molecular cloning of SCDGF-B, a novel growth factor homologous SCDGF/PDGF-C/fallotein.";
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Liu B., Liu Y.Q., Wang X.Y., Zhao B., Sheng H., Zhao X.W., Liu
                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 1742; DB 2; Length 364; 100.0%; Pred. No. 3e-129; ive 0; Mismatches 0; Indels 0;
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                                          PubMed=12975309;
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                                                                                                                                                                                                                                    "The secreted protein discovery initiative (SPDI), a large-scale
"The effort to identify novel human secreted and transmembrane proteins: a
bioinformatics assessment.";
Genome Res. 13:2265-2270(2003).

RR EMBL; AV27518; AAK20621; -..

R EMBL; AV359116; AAK30645.1; -..

R EMBL; AV359116; AAK30645.1; -..

R EMBL; AV359116; AAK30645.1; -..

R EMBL; AV359116; CTS91.

R OO; GO:0016020; C:membrane; IEA.

GO; GO:0016020; C:membrane; IEA.

GO; GO:0016020; C:membrane; IEA.

R O; GO:001618; P:cell growth factor anintenance; IEA.

R InterPro; IPR0000959; CUB.

R InterPro; IPR000091; TONB_BOx_N.

R InterPro; IPR0010916; TONB_BOx_N.
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         MEDINE=22887296; PubMed=12975309;
Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J.,
Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd
Eaton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S.,
Hanang A., Kim H.S., Klimowski L., John X., Johnson S., Lee J.,
Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J.,
Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A.,
Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D.,
Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
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Mammalia; Eutheria; Primata; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
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49 LYRRDENIRVTGTGHVQSPRFPNSYPRNLLLTWRLHSQEKTRIQLAFDHQFGLEEAENDI 108
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289 NVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMA 348
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rattus norvegicus (Rat).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=21092670; PubMed=11162582;
Hamada T., Ui-Tei K., Imaki J., Miyata Y.;
"Molecular cloning of SCDGF-B, a novel growth factor homologous
SCDGF/PDGF-C/fallotein.";
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GO; GO:0016020; C:membrane; IEA.
GO; GO:0016083; F:growth factor activity; IEA.
GO; GO:0008151; P:growth factor activity; IEA.
GO; GO:0008151; P:growth and/or maintenance; IEA.
InterPro; IPR000859; CUB.
InterPro; IPR00012; PD_growth_factor.
RPART; SM00141; PDGF; 1.
SMART; SM00141; PDGF; 1.
RPGSITE; PS01180; CUB; 1.
RPGSITE; PS01789; PDGF 2; 1.
SRQUENCE 370 AA; 42809 MW; 7BE8A251F679BF73 CRC64;
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                                                                                                                                                                                                                                                                                                               Q9EQT1;
01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Spinal-cord derived growth factor-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Biochem. Biophys. Res. Commun. 280:733-737(2001)
EBBL; AB0502170; BAB18920.1; -.
PIR; JC7592; JC7592
HS2P, Q9UCV4; INZI.
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                                                                                                     349 LVDIQLDHHERCDCICSSRPPR 370
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                                                                                                                                                                                                                                                                                     PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Name=rSCDGF-B;
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                                                                                                                                                                                MEDLINE=21231380; PubMed=11331882;
LaRochelle W.J., Jeffers M., McDonald W.F., Chillakuru R.A.,
Giese N.A., Lokker N.A., Sullivan C., Boldog F.L., Yang M., Vernet C.,
Burgess C.E., Fernandez E., Deegler L.L., Rittman B., Shimkets J.,
Shimkets R.A., Rothberg J.M., Lichenstein H.S.;
"PDGF D, A.Novel Protease-Activated Growth Factor.";
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Cao H.Q., Zhao Y., Liu L.S., Ding J.F., Gao R.L., Wu Q.Y., Qiang B.Q.,
Yuan J.G., Liew C.C., Zhao M.S., Hui R.T.;
Submitted (DEC-1998) to the EMBL/GenBank/DbBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=22103462; PubMed=12107412; Wistow G., Berstein S.L., Ray S., Wyatt M.K., Behal A., Touchman J.W., Bouffard G., Smith D., Peterson K.; "Expressed sequence tag analysis of adult human iris for the NEIBank Project: steroid response factors and similarities with retinal pigment epithelium."; Mol. Vision 8:185-195(2002).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
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EMBL; AR13316; AA399303.1; -
EMBL; AR1335584; AA438840.1; -
EMBL; AR235584; AAK38840.1; -
EMBL; AR235576; AAK50081.1; -
EMBL; AV027517; AAK20081.1; -
EMBL; AV027517; AV027617; -
EMBL; AV027617; -
EMBL
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PROSITE; PS50278; PDGF 2; 1.
PROSITE; PS00430; TONB DEPENDENT REC 1; UNKNOWN 1.
SEQUENCE 370 AA; 42848 MW; D387F485E7BB7674 CRC64;
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SMART; SM00042; CUB; 1.
SMART; SM00141; PDGF; 1.
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Best Local Simil
Matches 322; C
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                                                                                                                                                                                                                                                                                                                                      STRAIN=BALB/C;
MREDLINES_1231380; PubMed=11331882;
LaRochelle W.J., Jeffers M., McDonald W.F., Chillakuru R.A.,
Giese N.A., Lokker N.A., Sullivan C., Boldog F.L., Yang M., Vernet C.,
Burges C.E., Ferrandez E., Deegler L.L., Rittman B., Shimkets J.,
Shimkets R.A., Rothberg J.M., Lichenstein H.S.;
"PDGF D, A Novel Protease-Activated Growth Factor.";
Nat. Cell Biol. 3:517-521(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs."; Nature 420:563-573 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUB=Whole body;
MEDLINE=20499374; PubMed=11042159;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
Wormalization and subbraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new genes.";
Genome Res. 10:1617-1630(2000).
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Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,
Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=CSTBL/64; TISSUE=Whole body;
MEDLINE=20530913; PubMed=11076861;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watshiki M.,
Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
sequencing pipeline with 384 multicapillary sequencer.";
              092517; Q9D1L8;
01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
05-JUL-2004 (TrEMBLrel. 17, Last annotation update)
Platelet-derived growth factor D (Wus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110003109 product:platelet-derived growth factor D).
                                                                                                                                                                                                  Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=C57BL/6J; TISSUB=Whole body;
MEDLINE=99279253; PubMed=10349636;
Carninci P., Hayashizaki Y.;
Carnihot-fficiency full-length cloning.";
Meth. Enzymol. 303:19-44(1999).
370 AA
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STRAIN=CSTBL/64; TISSUE-Whole body;
MEDLINE=21085660; PubMed=11217851;
RIKEN FANTOM CONSORTIUM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE=Whole body;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genome Res. 10:1757-1771(2000).
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PRELIMINARY;
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SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
                                                                                                                                                                                   Name=Pdgfd;
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Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,
Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numzaki R., Ohno M.,
Ackazaki Y., Okido T., Owa C., Salto H., Saito R., Sakai C., Sakai K.,
Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,
Sapabe Y., Loya T., Yamamura T., Yasunishi F., Tanaka T.,
Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,
Muramatsu M., Hayashizaki Y.;
Bubitted (UUL-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AR03359; BAB2735.2; -
BMCD; MOI-1919035; Baggiation of peptidyl-tyrosine phosphoryla. .; IDA.
InterPro; IPR000859; CUB.
InterPro; IPR00082; CUB.
InterPro; JR00041; CUB; 1.
SMART; SM0042; CUB; 1.
BRART; SM0041; PDGF; 1.
BRART; SM0041; PDGF; 1.
BROSITE; PSS01180; CUB; 1.
BROSITE; PSS01180; CUB; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169 FVEDFQPEAASETNWESVISSFSGVSYHSPSIIDPILIADALDKIVAEFDIVEDLLKHFN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109 CRYDFVEVEESYSESSTVVRGRRCGHKEIPPRITSRTWQIKITFKSDDYFVAKFGFKIYYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 LYRRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEBAENDI
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Lagomorpha, Leporidae, Oryctolagus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.6%; Score 1561; DB 2; Length 3
86.6%; Pred. No. 6.1e-115;
ive 23; Mismatches 20; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ray S., Wistow G.;
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AY347260; AAQ24382.1; -.
InterPro; IPR000859; CUB.
InterPro; IPR000072; PD_growth_factor.
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Iris-expressed growth factor (Fragment).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        349 LVDIQLDHHERCDCICSSRPPR 370
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SMART; SM00042; CUB;
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                                                                                                                                             Pdgfd protein.
Name=Pdgfd;
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                                                                                                                                                                                                                                                                                                        241 LLVQRCGGNCGCGTVNWKSCTCSSGKTVKKYHEVLKFEPGHFKRRNRAKNMALVDIQLDH 300
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            248
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                                                                                                                                                                                                         129 AASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFNPESWOEDL
                                                                                                                                                                                                                                                   ENMYLDTPRYRGRSYHDRKSKVDLDRLNDDAKRYSCTPRNYSVNIREELKLANVVFFPRC
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                                                                                                                        9 QVKGNGYVQSPRFPNSYPRNLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEV
                                                                                                                                            1 OVTGNGHVOSLAPPNSYPRNLLLTWRLHSQEKTRIQLAPDHOFGLEEAENDICRYDFVEV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Lagomorpha; Leporidae; Oryctolagus.
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                                                                               Length 300;
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                                                                                                    14; Indels
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Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases
EMBL; AY347260; AAQ24382.1; -.
                                               300 300
300 AA; 34616 MW; 716C873C9C01C0C6 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                       02-WAR-2004 (TrEMBLrel. 27, Created)
02-WAR-2004 (TrEMBLrel. 27, Last sequence update)
02-WAR-2004 (TrEMBLrel. 27, Last annotation update)
                                                                             85.7%; Score 1493; DB 2;
91.3%; Pred. No. 1.1e-109;
iive 12; Mismatches 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85.7%; Score 1493; DB 2;
91.3%; Pred. No. 1.1e-109;
ive 12; Mismatches 14;
                                                                                                                                                                                                                                                                                                                                                                      300 AA
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                                                                                                                                                                                                                                                                                                                                                                      PRT;
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SMART; SM00042; CUB; 1.
PROSITE; PS01180; CUB; 1.
PROSITE; PS50278; PDG__2; 1.
                                                                                         Best Local Similarity 91.31
Matches 274; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 91.3*
Matches 274; Conservative
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SEQUENCE
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NON TER
SEQUENCE
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AAQ24382;
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                                                                              Query Match
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TISSUE-Mammary tumor. Metallothionien-TGF alpha model. 10 month old virgin mouse. Taken by biopsy.;

X MEDLINE-2238257; PubMed=1247932;

X MEDLINE-2388257; PubMed=1247932;

X Straubberg R.L., Feingold B.A., Grouse L.H., Derge J.G.,

X Alachul S.F., Zeeberg B. Buetow K.H., Schaefer C.F., Bhar N.K.,

A Lischul S.F., Zeeberg B. Buetow K.H., Schaefer C.F., Bhar N.K.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Rosak S.A., McEwan F.J., McKernan R.J., Malek J.A., Gunaratne P.H.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Richards S., Worley K.C., Hale S., Garcia A.M., Rodrigues R.A.,

Rahting M., Madan A., Young A.C., Shevchenko Y., Boulfard G.G.,

Rhiting M., Madan A., Young A.C., Shevchenko Y., Boulfard G.G.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

Rahtinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

A deneration and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
249 LLVORCGGNGGCGTVNWRSCTCNSGKTVKKHEVLOFEPGHIKRRGRAKTMALVDIQLDH 308
241 LLVORCGGNGGCGTVNWKSCTCSSGKTVKKHEVLKFEPGHFFRRNRAKNRALVDIQLDH 300
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GO; GO:0050730; P:regulation of peptidyl-tyrosine phosphoryla. . .;
InterPro; IPR000835; CUB.
Pfam; PF00431; CUB; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 old
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 261;
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TISSUE=Mammary tumor, Metallothionien-TGF alpha model. 10
virgin mouse. Taken by biopsy.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 55.4%; Score 965; DB 2; Length 26 Best Local Similarity 84.2%; Pred. No. 4.7e-68; Matches 17; Mismatches 16; Indels
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Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases
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SEQUENCE 261 AA; 30228 MW; 2EEC3F6373A52D09 CRC64;
                                                                                                                                                                                                                                                                                                                                                              Created)
Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                          01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; BC030896; AAH30896.1;
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Mus musculus (Mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                               NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                   TISSUE=Ovary;
                                                                         090Y71
                                                  RESULT 10
                                                              17YQ60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                45 QHEKIITVTSNGSIHSPKFPHTYPRNTVLVMRLVANDENVWIQLTFDERFGLEDPEDDIC 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62 RYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYSL 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122 LEDFQPAAASETNWESVTSSISGVSYNSPSVTDPT-LIADALDKKIAEFDTVEDLLKYFN 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PESWQEDLENMYLDTPRYRGRSY-HORKSK-VDLDRLNDDAKRYSCTPRNYSVNIREELK 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LANVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRG-RAK 297
 LLEDFOPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLKYFN 180
           61
                                                                                                                                                                                                                                                                STRAIN-white leghorn; TISSUE-Spinal cord;
MEDLINE-20317014; PubMed=10858496;
Hamada T., Ul-Tei K., Miyata Y.;
Hamada T., Ul-Tei K., Miyata Y.;
An ovel gene derived from experiments of the PDGF/VEGF family.";
FEBS Lett. 475:97-102(2000).
--: SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
HSSP: QUCY4; 1NZI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 RRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHS-QENTRIQLVFDNQFGLEEAENDIC
                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43.1%; Score 751.5; DB.2; Length 345; 47.0%; Pred. No. 5e-51; ive 53; Mismatches 87; Indels 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS01180; CUB; 1.
PROSITE; PS02078; PDGF 2; 1.
Growth factor; Mitogen.
SEQUENCE 345 AA; 38940 MW; 97ACEA992BF5128C CRC64;
                                                                                                                                                                                                                                                                                                                                                                 GO; GO:0016020; C:membrane; IEA.
GO; GO:0016020; C:membrane; IEA.
GO; GO:00080151; P:growth factor activity; IEA.
InterPro; IPR0008152; CUB.
InterPro; IPR000815; CUB.
InterPro; IPR000072; PD_growth_factor.
Pfam; PF00431; CUB; 1.
ProDom; PD001429; PD_growth_factor.
ProDom; PD001429; PD_growth_factor; 1.
SMART; SM00141; PDGF; 1.
                                                                                                                                                  Last sequence update)
Last annotation update)
factor.
                                                                                                                     345 AA
                                                     181 PESWQEDLENMYLDTPRYRGRSYHDRKSK 209
                                                                                                                                         Created)
                                                                                                                    PRT;
                                                                                                                                       (TrEMBLrel. 15, 1
(TrEMBLrel. 15, 1
(TrEMBLrel. 25, 1
                                                                                                                                                                       Spinal cord-derived growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 47.0
Matches 150; Conservative
                                                                                                                     PRELIMINARY;
                                                                                                                                                                                            Gallus gallus (Chicken)
                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                       NCBI_TaxID=9031;
                                                                                                                                        01-OCT-2000
01-OCT-2000
                                                                                                                                                              01-OCT-2003
                                                                                                                                                                                  Name=SCDGF
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SEQUENCE FROM N.A.
STRAINE-207BL/G0; IISSUE=Cecum, Cerebellum, and Head;
MEDLINE-2079J74; PubMed=1102159;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
Worninjiation and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new genes.";
Genome Res. 10:1617-1630(2000).
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                                                                                                                                                                                                                                                                                                                                                                                                           01-MAY-2000 (TERMELFEI 13) Last sequence update)
01-OCT-2004 (TERMELFEI 13) Last annotation update)
10-OCT-2004 (TERMELFEI 28, Last annotation update)
Rallotein (Platelet-derived growth factor C) (Mus musculus adult male cecum cDNA, RIKEN full-length enriched library, clone:9130403008
product:platelet-derived growth factor, C polypeptide, full insert sequence) (Mus musculus 7 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:A330022611 product:platelet-derived growth factor, C polypeptide, full insert sequence) (Mus musculus 15 days embryo head cDNA, RIKEN full-length enriched library, clone:A30020201 product:platelet-derived polypeptide, full insert sequence) (Mus musculus 15 polypeptide, full insert sequence).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Functional annotation of a full-length mouse cDNA collection."; Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tsai Y.-J., Lee R.K.-K., Chen Y.-H., Lin S.-P., Cheng W.T.-K.; Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=C57BL/6J;

gao Z., Hart C., Piddington C., Sheppard P., Shoemaker K.,
Gilbertson D., West J., O'Hara P.J.;
Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.
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STRAIN=C57BL/6J; TISSUE=Cecum, Cerebellum, and Head;
MEDLINE=20530913; PubMed=11076861;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=C57BL/6J; TISSUB=Cecum, Cerebellum, and Head; MEDLINE=99279253; PubMed=10349636; Carninci P., Hayashizaki Y.; "High-efficiency full-length cDNA cloning.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-C57BL/6J; TISSUE-Cecum, Cerebellum, and Head; MEDLINE-21085660; PubMed=11217851; RIKEN FANTOM COnsortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=C57BL/6J; TISSUE=Cecum, Cerebellum, and Head;
                                                                                                                                                                                                                                                                                                       345 AA.
                                                                                                                                                                                                                                                                                                                                                                                         01-MAY-2000 (TrEMBLrel. 13, Created)
                                        321 HKSLTDVPLEHHEECDCVC 339
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298 TMALVDIQLDHHERCDCIC
                                                                                                                                                                                                                                                                                                       PRELIMINARY;
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3 RRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHS-QENTRIQLVFDNQFGLEEAENDIC
         322 KSLTDVALEHHEECDCVC 339
                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                       Name=Pdgfc;
                                                                               RESULT 11
                                                                                                     Q8C119
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EMBL; AK033734; BAC26455.1; --
EMBL; AK033734; BAC26455.1; --
EMBL; AK037734; BAC216316.1; --
EMBL; AK052947; BAC315216.1; --
MGD; MGI:1859631; Pdgfc.
MGD; MG:0005576; C:extracellular; IDA.
MGD; GO:000516; F:platelet-derived growth factor receptor bin. .; IDA.
GO; GO:000516; F:platelet-derived growth factor receptor bin. .; IDA.
GO; GO:000518; P:regulation of peptidyl-tyrosine phosphoryla. .; IDA.
GO; GO:000717; P:transmembrane receptor protein tyrosine kin. .; IDA.
InterPro; IPR000859; CUB.
InterPro; IPR000072; PD_growth_factor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           45 RHERVVIISGNGSIHSPKFPHTYPRNMVLVWRLVAVDENVRIQLIFDERFGLEDPEDDIC 104
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A Adachi J. Aizawa K. Akimura T., Arakawa T., Bono H., Carninci P.,
Pukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
Fukuda S., Furuno M., Haramoto K., Hiraoka T., Hirozane T.,
A Hayashida K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
A Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
A Saito R., Saitoh H., Sakai C., Sakai K., Sakaume N., Sano H.,
A Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogobe Y., Tagami M.,
A Tagawa A., Taya T., Yasunishi A., Muramatsu M., Hayashizaki Y.,
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
C-!- SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRINQIKITFKSDDYFVAKPGFKIYYSL 121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43.1%; Score 750.5; DB 2; Length 345;
45.6%; Pred. No. 6e-51;
ive 58; Mismatches 88; Indels 27; Gaps
Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsumoto H., Sakagurchi S., Ikegami T., Kashiwagi K., Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watshiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.; sequencing pipeline with 384 multicapillary sequencer.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          345 AA; 38741 MW; 3A58A1F701B84EA2 CRC64;
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PROSITE, PS50278; PDGF_2; 1.
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Matches 145; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam, PF00431; CUB; 1.
Pfam, PF00341; PDGF; 1.
SMART; SM00042; CUB; 1.
SMART; SMO0141; PDGF; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Growth factor; Mitogen
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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       RAPARA RA
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Straubberg R.;
Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.

Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.

-!- SIMILARITY: Belongs to the PDGF/VEGF growth factor family.

EMBL; BC037696; AAH37696.1;

RGJ; GO:0005161; P:platelet-derived growth factor receptor bin. .; IDA.

GO; GO:0005161; F:platelet-derived growth factor receptor bin. .; IDA.

RGJ; GO:0005161; F:platelet-derived growth factor receptor bin. .; IDA.

GO; GO:0005161; F:platelet-derived growth factor receptor bin. .; IDA.

RGJ; GO:0005171; P:reansmembrane receptor protein tyrosine kin. .; IDA.

RGJ; GO:000717; P:reansmembrane receptor protein tyrosine kin. .; IDA.

R GO; GO:00072; PDGF; I.

R FFam; PF00431; CUB; 1.

R FFam; PF00431; CUB; 1.

R FFAM; SM0042; CUB; 1.

R SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUB-Mammary tumor metastatized to lung. MMTV-LTR/Wntl model.

Expression driven by an MMTV-LTR enhancer.;

MEDINE-22388257; bubMed=1247932;

Expression driven by an MMTV-LTR enhancer.;

MEDINE-22388257; bubMed=12477932;

Extausberg R.L., Feingold B.A., Grouse L.H., Derge J.G.,

Rausner R.D., Colling F.S., Wagner L., Shenmen C.M., Schuler G.D.,

Ratchul S.F., Zeeberg B. Buetow K.H., Schaefer C.F., Bhat N.K.,

A litschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Bitchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Rongetein M.J., Usdin T.B., Toenlywis S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Rosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Rahas S., Worley D.M., Sodergen B.J., Lu X., Gibbs R.A.,

Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Whiting M. M., Touchman J.W., Green B.D., Dickson M.C.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

Ray Marya M.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jones S.J., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IISSUE=Mammary tumor metastatized to lung. MMTV-LTR/Wnt1 model.
Expression driven by an MMTV-LTR enhancer.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2; Length 345;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
43.0%; Score 748.5; DB 2; Length 3
Best Local Similarity 45.3%; Pred. No. 8.6e-51;
Matches 144; Conservative 59; Mismatches 88; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Growth factor; Mitogen.
SEQUENCE 345 AA; 38741 MW; 9A58A05C6C0E9614 CRC64;
                                                                                                                           01-MAR-2003 (TrEMBLrel. 23, Last sequence update) 01-OCT-2003 (TrEMBLrel. 25, Last annotation update) Platelet-derived growth factor, C polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                             01-MAR-2003 (TrEMBLrel. 23, Created)
PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS01180; CUB; 1.
PROSITE; PS50278; PDGF_2; 1.
PRELIMINARY;
                                                                                                                      (TrEMBLrel.
                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse)
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Organogenesis.";

Mech. Dev. 96:209-213(2000).

REMBLA AF286725; AAR91483.1; -.

REMBLA AF286725; AAR91483.1; -.

ROJ, GO:0005576; C:extracellular; IDA.

GO; GO:0005161; Fightelet-derived growth factor receptor bin. .; IDA.

GO; GO:0005171; P:positive regulation of peptidyl-tyrosine phosphoryla. .;

GO; GO:0007171; P:transmembrane receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive regulation.

ROJ GO:0007171; P:positive regulation.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.

ROJ GO:0007171; P:positive receptor protein tyrosine kin. .; IDA.
                   LEDFOPAAASETNWESVTSSISGVSYNSPSVTDPTLIA-DALDKKIAEFDTVEDLLKYFN 180
                                                                                                                                                                                                                                                                                                265 RIDIIFWPGCLLVKRCGGNCACCLHNCNECQCVPRKVTKKYHEVLQLRP-KIGVKGLHK-322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122 LEDFQPAAASETNWESVTSSISGVSYNSPSVTDP-TLIADALDKKIAEFDTVEDLLKYFN 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             205 PDRWQVDLDSLYKPTWQLLGKAFLYVKKSKVVNLNLLKEEVKLYSCTPRNFSVSIREBLK 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PESWOEDLENMYLDTPRYRGRSY-HDRKSK-VDLDRLNDDAKRYSCTPRNYSVNIREELK 238
                                                      -----SPSVLPPSALSLDLLNNAVTAFSTVEELIRFLE
                                                                                                                                                                         181 PESWQEDLENMYLDTPRYRGRSY-HDRKSK-VDLDRLNDDAKRYSCTPRNYSVNIREELK
                                                                                                                                                                                                                                                                239 LANVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-Swiss-Webster/NIH;
MEDLINE=20417914; PubMed=10960785;
Ding H., Wu X., Kim I., Tam P.P.L., Koh G.Y., Nagy A.;
"The mouse Pdgfc gene: dynamic expression in embryonic tissues during
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYSL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHS-QENTRIQLVFDNQFGLEEAENDIC
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
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345 AA; 38886 MW; FA1486BED6D362F8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Plateler-derived growth factor C.
                                                                                                                                                                                                                                                                                                                                                                                                                       323 -SLTDVALEHHEECDCVC 339
                                                                                                                                                                                                                                                                                                                                                                                   299 MALVDIQLDHHERCDCIC 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                            I---MPQVTETT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
                                                                            163
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                                                                                                                                                                                                                   LEDFQPAAASETNWESVTSSISGVSYNSPSVTDP-TLIADALDKKIAEFDTVEDLLKYFN 180
RYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYSL 121
                                                                                                                                   PESWQEDLENMYLDTPRYRGRSY-HDRKSK-VDLDRLNDDAKRYSCTPRNYSVNIREELK 238
                                                                                                                                                                                                                                                                                                                                                                                239 LANVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKT 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       265 RIDTIFWPGCLLVKRCGGNCACCLHNCNECQCVPRKVTKKYHEVLQLRP---KTGVKGLH 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTWQIKITFKSDDYFVAKPGFKIYYSL 121
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K STRAIN-Wistar; TISSUS-Kidney;

K MEDLINES-21092670; PubMed=11162582;

K HAmada T., Ui-Tei K., Imaki J., Miyata Y.;

H Hamada T., Ui-Tei K., Imaki J., Miyata Y.;

R SCDGF/PDGF-C-fallotein...;

B SCOGF/PDGF-C-fallotein...;

B Biochem. Biophya. Res. Commun. 280:733-737(2001).

CC -1- SIMILARITY: Belongs to the PDGF/VEGF growth factor family.

DR GO; GO:0008083; P:growth factor activity; IEA.

DR GO; GO:0008083; P:growth factor activity; IEA.

DR GO; GO:0008083; P:cell growth and/or maintenance; IEA.

DR HOSE-FROWTH STRAIN-FURN...

DR HOSE-FROWTH STRAIN-FURN...
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus
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Last annotation update)
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Name=rScdgf;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MALVDIQLDHHERCDCIC 316
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322 KSLTDVALEHHEECDCVC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAR-2001 (TrEMBLrel. 16, 01-MAR-2001 (TrEMBLrel. 16, 01-OCT-2003 (TrEMBLrel. 25.
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PROSITE; PS50278; PDGF_2; 1.
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Pfam; PF00341; PDGF; 1.
SMART; SM00042; CUB; 1.
SMART; SM0141; PDGF; 1
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                                      45
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Matches
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Query Match
Best Local Similarity
Matches 150; Conserva
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                          LANVVFFPRCLLVQRCGGNCGCGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKT 298
                                                               MEDLINE=20317014; PubMed=10858496;
Hamada T., Ui-Tei K., Miyata Y.;
"A novel gene derived from developing spinal cords, SCDGF, is a unique
member of the PDGF/VEGF family.";
FEBS Lett. 475:97-102(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=21347863; PubMed=11297552; Gilbertson D.G., Duff M.E., West J.W., Kelly J.D., Sheppard P.O., Hofstrand P.D., Gao Z., Sheemaker K., Bukowski T.R., Moore M., Feldhaus A.L., Humes J.M., Palmer T.E., Hart C.E.; Platelet-derived growth factor C (PDGF-C), a novel growth factor that binds to PDGF alpha and beta receptor.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tsai Y.J., Lee R.K., Lin S.P., Chen Y.H.;
"Identification of a novel platelet-derived growth factor-like gene,
fallotein, in the human reproductive tract.";
Blothim. Blothys. Acta 1492:196-202(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cord-derived
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Genome Res. 13:2265-2270(2003).

GMBL; AR091434; AAR010049.1; ..

EMBL; AR260738; AAK51637.1; ..

EMBL; AF260738; AAK51637.1; ..

EMBL; AF260738; PAK51637.1; ...

EMBL; AF260738
                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
05-UTL-2004 (TrEMBLrel. 27, Last annotation update)
Secretory growth factor-like protein fallotein (Spinal cor growth factor) (Platelet-derived growth factor C) (VEGF-E)
Name-hSCDGF; Synonyms-PDGFC; ORFNames-UNQ174;
                                                                                                                                                                                                                                                                                                                                                                                     345 AA
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MEDLINE=22887296; PubMed=12975309;
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322 KSLTDVALEHHEECDCVC 339
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Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                          29;
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Nat. Cell Biol. 2:302-309(2000).
-!- SIMILARITY: Belongs to the PDGF/VEGF growth factor family.
EMBL; AF244813; AAF80597.1; -.
                                                                                                                                                                                                   DB 2; Length 345;
                                                                                                                                                                                             42.5%; Score 739.5; DB 2; Length 47.0%; Pred. No. 4.4e-50; Live 51; Mismatches 89; Indels
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Go; GO:0016020; C:membrane; IEA.

GO; GO:000803; F:growth factor activity; IEA.

GO; GO:000815; F:growth factor activity; IEA.

GO; GO:000815; F:cell growth and/or maintenance; IEA.

InterPro; IPR00085; CUB.

InterPro; IPR000812; PD_growth_factor.

Ffam; PP0041; CUB; 1.

SMART; SM00141; PDGF; 1.

PROSITE; PS01180; CUB; 1.

PROSITE; PS0128; PDGF; 1.
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01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Platelet-derived growth factor C.
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InterPro; IPR000072; PD_growth_factor. Pfam; PF00431; CUB; 1. Pfam; PF00341; PDGF; 1. PROSITE; PS01180; CUB; 1. PROSITE; PS550278; PDGF 2; 1. SEQUENCE 345 AA; 39029 MW; CDE9E51
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MEDLINE=20268201; PubMed=10806482;
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122 -LEDFQPAAASETNWESVTSSISGVSYNSPSYTDPT-LIADALDKKIAEFDTVEDLLKYF 179
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                                                                                                                     3 RRDETIQVKGNGYVQSPRFPNSYPRNLLLTWRLHS-QENTRIQLVFDNQFGLEEAENDIC 61
                                  Query Match
42.5%; Score 739.5; DB 2; Length 345;
Best Local Similarity 47.0%; Pred. No. 4.4e-50;
Matches 150; Conservative 51; Mismatches 89; Indels 29; Gaps
345 AA; 39043 MW; 590889CEA55CC5EA CRC64;
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321 HKSLTDVALEHHEECDCVC 339
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SEQUENCE
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Search completed: October 29, 2004, 23:32:27 Job time : 194 secs

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APPLICANT: ERIKSSON, U1f
APPLICANT: ERIKSSON, U1f
APPLICANT: LEE, Xuri
APPLICANT: DONTH, Annica
APPLICANT: DONTH, Annica
APPLICANT: DONTH, Annica
APPLICANT: DONTHAN, Annica
APPLICANT: DOSTWAN, Arne
APPLICANT: HELDIN, Carl-Henrik
TITLE OF INVENTION: PLATELET-DERIVED GROWTH FACTOR D,
TITLE OF INVENTION: THEREFOR, AND USES THEREOF
TITLE OF INVENTION UNBER: GO/107,852
EARLIER APPLICATION NUMBER: GO/107,852
EARLIER APPLICATION NUMBER: GO/150,604
EARLIER FILING DATE: 1999-10-05
EARLIER FILING DATE: 1999-10-05
NUMBER OF SEQ ID NOS: 31
SOFTWARE: PATENT OF THE THEREOF
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US-09-564-595D-32

US-09-706-595D-32

US-09-00-220D-1

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US-09-723-749-1

US-09-723-749-1

US-09-723-749-1

US-09-726-968-50

US-09-468-647-28

US-09-806-708B-22

US-09-806-708B-22
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3-09-457-066-1
3-09-564-595D-32
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100.0%; Pred. No. 0;
tive 0; Mismatches
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Matches 1934; Conservative
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Query Match
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4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
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US-09-808-972-3

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US-09-564-595D-52

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US-09-564-595D-6

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	Oy 1321 TARARICCTTTGCCARANTARGGGATGGTCARATT	1381	Db 1441 AAGAAAGCATCTTGTATATAAAAATCAAAAGAT Qy 1501 TTGATTATTAAAAAAGGAAAAAGGTTTCCAGAGA	Oy 1561 CATGAGAAGCACTGCATACTTACCTATGTGGACT	 1621 CATAATA) 1681 CATCCTTA	1681 CATCCTTAT" 1741 CTACAAAAG	Db 1741 CTCCACAAAGCCAATGTATAGCTGTAACAGAATTATAGACTGTAACAGAATTATAGAATGGCAATAGAATGCAATAGAATGCAATAGAATGCAATAGAATGCAATAGAATGCAATAGAATGCAATAGAATGCAATAGAATGCAATAGAATGCAATAGAATGCAATAGAATGCAATAGAATGAAT	Db 1801 CTCCAAAAGCAATCCTTTCAAGAATGCATT  Qy 1861 GGTGTTCACTGAAAGATGTGGGTAGTAGGAACT	Db 1861 GGIGTICAGTGAAAGAIGTGGGGAATTGAGAACT Qy 1921 GTAACTGGAAACCG 1934	Db 1921 GTAACTGGAAACCG 1934	RESULT 2 US-09-438-046-7 ; Sequence 7, Application US/09438046 ; Patent No. 6706687	GENERAL INFO APPLICANT: APPLICANT: APPLICANT:	, APPLICANT: PONTN, Annica ; APPLICANT: UUTELA, Marko ; APPLICANT: ALITALO, Kari ; APPLICANT: OESTWAN, Arne	APPLICANT: HELDIN, CATL-HERITK ; TITLE OF INVENTION: PLATELET-DELIVED GROWTH ; TITLE OF INVENTION: THEREFOR, AND USES THERE ; FILE REFERENCE: UIE ELIKESON et al. 1064-4	CURRENT APPLICATION NUMBER: US/09/430,040 ; CURRENT FILING DAFE: 1999-11-10 ; EARLIER APPLICATION NUMBER: 60/107,852 ; EARLIER FILING DATE: 1998-11-10	
121 ACACGGATACAGCTATGACAATGAGTTTGGATTAGAGGAAGAGAATGATAT 180	181 IGIANGIAIGATITISISGAAGTTCCTCCAAGGATAAATCAAGAACGAACCAAATTAAA 300 241 CGATGGTGTGGACACAAGGAAGTTCCTCCAAGGATAAAATCAAGAACGAAC	01 ATCACATTCAAGTCCGATGA 	TGCTGGAAGATTTCCAACCGCAGCAGCAGCAGCAGCAACCAAC	421 TCTATTTCAGGGGTATCCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGAT 480 481 GCTCTGGACAAAAAATTGCAGAATTTGATACGGGAGATCTGCTCAAGTACTTCAAT 540 481 GCTCTGGACAAAAAATTGCAGAATTTGATACAGTGGAAGATCTGCTCAAGTACTTCAAT 540 481 GCTCTGGACAAAAAATTGCAGAATTTGATACAGTGGAAGATCTGCTCAAGTACTTCAAT 540	541 CCAGAGTCATGGCAAGAAGATTTGAGAATATGTATCTGGACACCCCTCGGTATCGAGGC 600	601 AGGTCATACCATGACCGGAAGTCAAAAGTTGACCTGGATAGGCTCAATGATGATGTGCAAG 660 	661 CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGTGAAGTTGGCC 720 	721 AATGTGGTCTTCTTTCCACGTTGCCTCCTCGTGCAGCGCTGTGGAGAATTGTGGCTGT 780 	781 GGAACTGICAACTGGAGGICCTGCACATGCAATTCAGGAAAACCGTGAAAAAGTAICAT 840 	841 GAGGTATTACAGTTTGAGCCTGGCCACATCAAGAGGGGGTAGAGCTAAGACCATGGCT 900 	901 CTAGTTGACATCCAGTTGGATCACCATGAACGATGCGATTGTATCTGCAGCTCAAGACCA 960 	961 CCTCGATAAGAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAGGA 1020 	1021 GGGTGAGATAAGAGACCCTTTTCCTACCAGCAAACTTACTACTACTGCCTGC		1141 GGTATATCARCTTCTATACCTAAGAATATAGGATTGCATTTAATAATAGTGTTTGAG 1200 	
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Best Local Similarity 100.0%; Pred. No. 0;
Matches 1934; Conservative 0; Mismatches
EARLIER APPLICATION NUMBER: 60/113,997
EARLIER FILING DATE: 1999-12-28
EARLIER PEDLICATION NUMBER: 60/150,604
EARLIER FILING DATE: 1999-08-26
EARLIER FILING DATE: 1999-08-26
EARLIER APPLICATION NUMBER: 60/157,108
EARLIER APPLICATION NUMBER: 60/157,756
EARLIER FILING DATE: 1999-10-05
NUMBER OF SEQ ID NOS: 31
SEQ ID NO 7
LENGTH: 2253
                                                                                                                                                    ; NAME/KEY: CDS
; LOCATION: (176)..(1288)
US-09-438-046-7
                                                                                                                         TYPE: DNA
ORGANISM: Homo sapiens
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CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAAGCTGAAGTTGGCC
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; Patent No. 6495668
; GENERAL INFORMATION:
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ZVEGF4
          US-09-540-224-1
) Sequence 1, Application US/09540224
) Patent No. General INFORMATION:
) APPLICANT: Gilbertson, Debra G.
) TITLE OF INVENTION: LIGAMENT AND CARTILAGE USING ZVE;
) TITLE OF INVENTION: LIGAMENT AND CARTILAGE USING ZVE;
) TITLE OF INVENTION: LIGAMENT AND CARTILAGE USING ZVE;
) CURRENT APPLICATION NUMBER: US/09/540,224
) CURRENT FILING DATE: 2000-03-31
) EARLIER APPLICATION NUMBER: US 60/180,169
) EARLIER APPLICATION NUMBER: 2000-02-04
) NUMBER OF SEQ ID NOS: 9
) SOFTWARE: PASESEQ for Windows Version 3.0
) SEQ ID NO.
                                                                                                                                                                                                                                                                                   ; Score 1491.8;
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                    77.1%;
99.6%;
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Best Local Similarity 99.6
Matches 1507; Conservative
                                                                                                                                                                                                                             FEATURE:
; NAME/KEY: CDS
... LOCATION: (226)...(1338)
US-09-540-224-1
                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
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APPLICANT: Gilbert, Teresa APPLICANT: Hart, Charles E. APPLICANT: Sheppard, Paul O. TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZVEGF4 FILE REPERBENCE: 99-19 CURRENT APPLICATION UNMER: US/09/564,595D CURRENT FILING DATE: 2000-05-03

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                               1150 GGAACTGTCAACTGGAGGTCCTGCACATTCAGGGAAAACCGTGAAAAAGTATCAT
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APPLICANT: Hart, Charles E.
APPLICANT: Hart, Charles E.
APPLICANT: Haddington, Christopher S.
APPLICANT: Sheppard, Paul O.
APPLICANT: Sheppard, Paul O.
APPLICANT: Shepard, Paul O.
APPLICANT: Shemaker, Kimberly E.
APPLICANT: Gilberteon, Debra G.
APPLICANT: West, James W.
TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZVER
FILE REFERENCE: 98-60C1
CURRENT APPLICATION NUMBER: US/09/706,968
CURRENT FILING DATE: 2000-11-06
PRIOR APPLICATION WUMBER: US/09/541,752
PRIOR FILING DATE: 2000-03-31
NUMBER OF SEQ ID NOS: 50
SOFTWARE: FASELSEQ for Windows Version 3.0
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; Patent No. 6528050
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                              Score 1491.8;
Pred. No. 0;
0; Mismatches
PRIOR APPLICATION NUMBER: US 09/304,216
PRIOR FILING DATE: 1999-05-03
PRIOR APPLICATION NUMBER: US 60/164,463
PRIOR FILING DATE: 1999-11-10
PRIOR FILING DATE: 2000-02-04
NUMBER OF SEQ ID NOS: 57
SEQ ID NO 1
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.6%;
Matches 1507; Conservative
                                                                                                                                                                                                                                                   ; NAME/KEY: CDS
; LOCATION: (226)...(1338)
US-09-564-595D-1
                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
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US-09-808-972-1

Sequence 1, Application US/09808972

Patent No. 6630142

GENERAL INFORMATION:

APPLICANT: Hart, Charles E.

APPLICANT: Gilbertson, Debra G.

ITILE OF INVENTION: METHOD OF TREATING FIBROPROLIFERATIVE

TITLE OF INVENTION: DISORDERS

FILE REFERENCE: 00-79

CURRENT PILING DATE: 2001-03-14

PRIOR APPLICATION NUMBER: US 60/235,295

PRIOR PILING DATE: 2000-09-26

PRIOR APPLICATION NUMBER: US 60/189

PRIOR PILING DATE: 2000-09-03

PRIOR PILING DATE: 2000-05-03

PRIOR PILING DATE: 1999-11-10

PRIOR PILING DATE: 1999-11-10

PRIOR FILING DATE: 1999-11-10

PRIOR FILING DATE: 1999-11-10

PRIOR FILING DATE: 1999-11-10

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO: 13

SEQ ID NO: 13

TYPE: DNA
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                                                                                                                                                              77.1%; Score 1491.8; 99.6%; Pred. No. 0; rative 0; Mismatches
                                                                                                                                                              Query Match 77.1. Best Local Similarity 99.6 Matches 1507; Conservative
; SEQ ID NO 36
; LENGTH: 1882
; TYPE: DNA
; ORCANISM: Homo sapiens
; FEATURE:
; NAMB/KEY: CDS
; LOCATION: (226)...(1338)
US-09-706-968-36
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                                                        1330 ccrccaraagagaargrecacarccrracarraagccrcaaagaaccrrragrrraagga
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| APPLICANT: Debroge, Laura |
| APPLICANT: Debroge, Laura |
| APPLICANT: Gao, Wei-Ojan gang |
| APPLICANT: Gao, Wei-Ojan gang |
| APPLICANT: Godowski, Paul J. |
| APPLICANT: Sherwood, Steven |
| APPLICANT: Sherwood, Steven |
| APPLICANT: Smith, Victoria |
| APPLICANT: Smith, Victoria |
| APPLICANT: Tumas, Daniel |
| APPLICANT: Watanabe, Colin K |
| APPLICANT: Applicant: Zhang, Zemin |
| APPLICANT: Zhang, Zemin |
| APPLICANT: APPLICANT: ACIDS ENCODING THE SAME |
| TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE PLICANT: PLICANT |
| TITLE OF INVENTION: SECRETED |
| TITLE OF INVENTION INVENTION INVENTION INVENTION INVENTION INVENTION INVENTION INVENTION IN
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Patent No. 6725730
GENERAL INFORMATION:
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Pred. No. 0;
0; Mismatches
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                                                                                                                                                Best Local Similarity 99.6
Matches 1507; Conservative
  ; ORGANISM: Homo sapiens
; FBATURE:
; NAME/KEY: CDS
US-09-808-972-1
ORGANISM: Homo sapiens
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                                                                                                                                       APPLICANT: Gilberteon, Debra G.
APPLICANT: Hart, Charles E.
TITLE OF INVENTION: LIGAMENT AND CARTILAGE USING ZVEGF4
TITLE OF INVENTION: LIGAMENT AND CARTILAGE USING ZVEGF4
TITLE OF INVENTION: UNDERST: US/09/540,224
CURRENT FILING DATE: 2000-03-31
EARLIER APPLICATION NUMBER: US 60/180,169
EARLIER PILING DATE: 2000-02-04
NUMBER OF SEQ ID NOS: 9
SOFTWARE: FASTESQ for Windows Version 3.0
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 795.4; DB 4; Length
Pred. No. 5.1e-199;
0; Mismatches 226; Indels
RESULT 9
US-09-540-224-3
i Sequence 3, Application US/09540224
; Patent No. 6468643
; GENERAL INFORMATION:
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78.78;
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; LOCATION: (93)...(1205)
US-09-540-224-3
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                                                               Score 1003.4; DB 4; Length 1162;
Pred. No. 1.1e-253;
0; Mismatches 1; Indels 0;
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                                                               51.9%;
                                                              Query Match
Best Local Similarity 99.9°
Matches 1004; Conservative
                   Sapien
      ; TYPE: DNA
; ORGANISM: Homo
US-10-140-002-185
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                                                                                          46;
                                                                Length 1472;
                                                                                          Indels
                                                                Score 795.4; DB 4;
Pred. No. 5.1e-199;
0; Mismatches 226;
                                                                 Query Match
Best Local Similarity 78.7%;
Matches 1007; Conservative
          ; NAME/KEY: CDS
; LOCATION: (93)...(1205)
US-09-564-595D-52
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                                                                   AATGTGGTCTTCTTTCCACGTTGCCTCCTCGTGCAGCGTGTGGAGGAAATTGTGGCTGT
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                           aggrearaceargaregeaagreeaaagreeaaccegeaeaggeereargareargareaag
                                                      CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCC
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Patent No. 649568

GENERAL INFORMATION:
GENERAL INFORMATION:
GIDERT, Teresa

APPLICANT: Gilbert, Teresa

APPLICANT: BREDBATG, PAUL O.
TILLE OF INVENTION: GROWTH FACTOR HOMOLOG ZVEC

FILE REFERENCE: 99-19
CURRENT APPLICATION NUMBER: US/09/564,595D

CURRENT PILING DATE: 1999-05-03

PRIOR PILING DATE: 1999-05-03

PRIOR FILING DATE: 1999-11-10

PRIOR FILING DATE: 2000-02-04

NUMBER: US GO/180,169

SEQ ID NOS: 57

SOFTWARE: FASICEC FOR WINDOWS VERSION 4.0

SEQ ID NOS: 57
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ORGANISM: Mus musculus
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; Sequence 52, App
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	RESULT 11 US-09-808-972-3 US-09-808-972-3 Sequence 3, Application US/09808972 Fatent No. 6630142 GENERAL INFORMATION: APPLICANT: Hart, Charles E. APPLICANT: Topouzls, Stavros APPLICANT: NUMBER: US 60/235,295 FRIOR FILING DATE: 2000-09-26 FRIOR APPLICATION NUMBER: US 60/180,169 FRIOR FILING DATE: 2000-02-04 FRIOR FILING DATE: 1999-11-10	EQ ID NOS: 13 astSEQ for Windows V 72 Mus musculus (93)(1205) 3 41.1%;	8-8 8-8 8-

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CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCC 720
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481 GCTCTGGACAAAAATTGCAGAATTTGATACAGTGGAAGATCTGCTCAAGTACTTCAAT
                                                                                                                              CCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGACACCCCTCGGTATCGAGGC
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APPLICANT: AASE, Karin
APPLICANT: DEE, Xuri
APPLICANT: DONIN, Annica
APPLICANT: UTELA, Marko
APPLICANT: UTELA, Marko
APPLICANT: ALITALO, Kari
APPLICANT: ALITALO, Kari
APPLICANT: HELDIN, Carl-Henrik
TITLE OF INVENTION: PLATELET-DERIVED GROWTH FACTOR D,
TITLE OF INVENTION: THEREFOR, AND USES THEREFOR,
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ORGANISM: Homo sapiens
US-09-438-046-3
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                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Gibert, Teresa
APPLICANT: Gibert, Teresa
APPLICANT: Sheppard, Paul O.
TITLE OF INVENTION: GROWTH FACTOR HOMOLOG ZVEGF4
FILE REFERENCE: 99-19
CURRENT FILING DATE: 2000-05-03
PRIOR APPLICATION NUMBER: US 09/304,216
PRIOR APPLICATION NUMBER: US 60/164,463
PRIOR PILING DATE: 1999-05-03
PRIOR PILING DATE: 1999-11-10
PRIOR PILING DATE: 2000-05-03
PRIOR PILING DATE: 2000-05-04
NUMBER OF SEQ ID NOS: 57
SOFTWARE: FastSEQ for Windows Version 4.0
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NAME/KEY: misc_feature
COCATION: (1)...(1110)
US-09-564-595D-6
US-09-564-595D-6
                                                                              Sequence 6, Application US/09564595D; Patent No. 6495668
                                            1261 GTTTTTTTGGTATATA 1279
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ORGANISM: Artificial Sequence
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APPLICANT: Yuqiu, Jiang
APPLICANT: Dillon, Davin C.
APPLICANT: Dillon, Davin C.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Xu, Jiangchun
TITLE OF INVENTION: Compositions for the Treatment and Diagnosis of Breast of TITLE OF INVENTION: and Methods for Their Use
FILE REPERENCE: 210121.40
CURRENT APPLICATION NUMBER: US/09/222,575
CURRENT FILING DATE: 1998-12-28
NUMBER OF SEQ ID NOS: 174
SOPTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 AGCTCAAGACCACCTCGATAAGAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCA 240
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11.1%; Score 213.8; DB 3;
Best Local Similarity 94.0%; Pred. No. 1.2e-46;
Matches 234; Conservative 0; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                            DB 4;
                                                                                                                                                                                                                                                                                                                                                                          18.4%; Score 355.2; DB 4 99.2%; Pred. No. 1.1e-83; ive 0; Mismatches 3
BARLIER APPLICATION NUMBER: 60/113,997
BEARLIER FILING DATE: 1999-12-28
EARLIER PILING DATE: 1999-08-26
EARLIER FILING DATE: 1999-08-26
EARLIER PILING DATE: 1999-10-04
EARLIER APPLICATION NUMBER: 60/157,108
EARLIER APPLICATION NUMBER: 60/157,756
EARLIER APPLICATION NUMBER: 60/157,756
SOFTWARE: PARENTIN VOYE: 1999-10-05
SOFTWARE: PARENTIN VOYE: 2.0
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; Sequence 13, Application US/09222575
; Patent No. 6387697;
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 99.2
Matches 357; Conservative
                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo sapiens
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US-09-222-575-13
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LENGTH: 256
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APPLICANT: ARIA
APPLICANT: LEE, Karin
APPLICANT: LEE, Karin
APPLICANT: PONTN, Annica
APPLICANT: UTELA, Marko
APPLICANT: ALITALO, Kari
APPLICANT: ALITALO, Kari
APPLICANT: ALITALO, Rari
APPLICANT: HELDIN, Carl-Henrik
APPLICANT: HELDIN, Carl-Henrik
APPLICANT: HELDIN, THEREFOR, AND USES THEREOF
ITILE OF INVENTION: PLATELET-DERIVED GROWTH PACTOR D,
ITILE OF INVENTION: THEREFOR, AND USES THEREOF
CURRENT APPLICATION NUMBER: 183(9)4438,046
CURRENT FILING DATE: 1999-11-10
EARLIER PELICATION NUMBER: 60/107,852
EARLIER FILING DATE: 1998-11-10
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  Query Match
Best Local Similarity 98.4%;
Matches 679; Conservative 0
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Liu, B., Liu, Y.O., Wang, X.Y., Zhao, B., Sheng, H., Zhao, X.W., Liu, S., Xu, Y.Y., Ye, J., Song, L., Gao, Y., Zhang, C.L., Zhang, J., Wei, Y.J., Qiang, B.O., Yuan, J.G., Liew, C.C., Zhao, R.C., Wu, Q.Y., Ding, J.F., Gao, R.L., Wu, Q.Y., Direct Submission
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	Db 847 AAIGTGGTCTTCTTTCCACGTTGCTCCTCGTGCAGGAAATTGTGGCTGT 906 Qy 781 GGAACTGTCAACTGGAGGTCCTGCAATGCAATTCAGGGAAAAACGTGAAAATTGTGGCTGT 940 Db 907 GGAACTGTCAACTGGAGTCCTGCACATGCAATTCAGGGAAAACGTGAAAAAGTATCAT 940 Db 907 GGAACTGTCAACTGGAGTCCTGCACATGCAATTCAGGGAAAACCGTGAAAAAGTATCAT 966	OY 841 GAGGTATTACAGTTTGAGCCTGGCCATCAAGAGGAGGGGTAGAGGTAAGACCATGGCT 900 	901 CTAGTTGACA              1027 CTAGTTGACA	OY 961 CCTCGATAA 969 Db 1087 CCTCGATAA 1095	RESULT 3 AY41998 LOCUS AY419998 TOTAL SON 1095 bp DNA linear GSS 12-DEC-2003	Genomic survey sequence AY419998 AY419998.1 GI:39775955	_	REFERENCE 1 (bases 1 to 105) AUTHORS Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.K., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.,		OUGNAL SCIENCE 102 (5652), 1960-1963 (2003) PUBMED 14671302 REFERENCE 2 (bases 1 to 1095) AUTHORS Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A.,	TITLE Direct Submission  TITLE Shimitted (16-NOV-2003) Celera Genemics 45 West Gide Drive	Rockville, ND 20850, USA This sequence as made by sequencing genomic exons and based on alignment.	FEATURES LOCATION/Qualifiers  1 .1095 /organism="Pan troglodytes" /mol type="genomic DNA" // Yaref="!" - 2000   10	gene <1>1095 /locus_tag="HCM7077"	Query Match 49.8%; Score 962.2; DB 9; Length 1095; Best Local Similarity 99.5%; Pred. No. 1.3e-216; Matches 964; Conservative 0; Mismatches 5; Indels 0; Gaps 0;	Oy 1 TIGTACCGAAGAGATGAGCCATCCAGGTGAAAGGAAACGCTACGTGCAGAGTCCTAGA 60	Qy 61 TTCCCGAACAGCTACCCCAGGAACCTGCTCCTGACATGGCGGCTTCACTCTCAGGAGAAT 120
	REFERENCE 197522 (Dases 1 to 1095) AUTHORS Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Perriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.	TITLE DIECE SUBMISSION JOURNAL SUbmitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA COMMENT This sequence as made by sequencing genomic exons and ordering them hased on alignment	FEATURES Coation/Qualifiers  1. 1095 /organism="Homo sapiens" /mol_type="genomic DNA"	/db_xref="taxon:9606" gene <1>1095 /locus_tag="HCM7077"	Query Match Best Local Similarity 99.9%; Pred. No. 7.5e-218; Matches 968; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	1 TTGTACCGAAGAGATGAGACCATCCAGGTGAAAGGAAACGGCTACGTGCAGAGGCCCTAGA 60 	61 TICCCGAACAGCTACCCCAGGAACCTGCTCCTCACATGGGGGCTTCACTCTCAGGAGAAT 120 	121 ACACGGATACAGCTAGTGTTTGACAATCAGTTTGCATTAGAGGAAGCAGAAAATGATATC 180 	181 TGTAGGTATGATTTTGTGGAAGTTGAAGATATATCCGAAACCAGTACCATTATTAGAGGA 240 	241 CGATGGTGTGGACAAGGAAGTTCCTCCAAGGATAAAATCAAGAACGAAC	301 AICACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGAITTATTGTTTTT 360	361 TTGCTGGAAGATTTCCAACCGGGGGGGGGTCGGGAACTGGGAATCTGTCACAAGC 420	421 TCTATTTCAGGGGTATCCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGAT 480	481 GCTCTGGACAAAAATTGCAGAATTTGATACAGTGGAAGATCTGCTCAAGTACTTCAAT 540 	541 CCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGACACCCCTGGGTATCGAGGC 600	601 AGGTCATACCATGACCGGAAGTCAAAAGTTGACCTGGATAGGCTCAATGATGATGACCCAAG 660 	661 CGTTACAGTTGCACTCCCAGGAATTACTCGGTCAATATAAGAGAAGAGGTGAAGTTGGCC 720

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Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110003109 product:platelet-derived growth factor D mRNA, full insert sequence.
AK003359.2 GI:26382601
HTC; CAP trapper.

ACCESSION VERSION KEYWORDS

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Analysis of the mouse transcriptome based on functional annotation of 60,70 full-length cDNAs
of 60,70 full-length cDNAs
(Nature 470, 563-573 (2002)
6 (bases 1 to 1797)
                                                                                                             Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000)
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                                                                                                                                                                                                                                                                  Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Weth. Enzymol. 303, 19-44 (1999)
99279253
Mus musculus (house mouse)
                                                               Mus musculus
Eukaryota; Metazoa;
Mammalia; Eutheria;
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RAENDICRYDFVEVEEVSESSTVVRGRWCGHKEIPPRITSRTNQIKITFKSDDYFVAK
PGFKIYYSFVEDFQPEAASETWMESYTSFSGVSYFSPSITDPFLITADALDKTVAEFD
TVEDLLKHFNPVSWQDDLENLYLDTPHYRGRSYHDRKSKVDLDRLNDDVKRYSCTPRN
HSVNIARELKLINAPFPRCLLVQRCGGNCGCGTVNNKSCTCSSGKTVKKYHEVLKFF
PGHFKRRGKAKNMALVDIQLDHHERCDCICSSRPPR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              translation="MORLVLVSILLCANFSCYPDTFATPORASIKALRNANLRRDESN
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Pred. No. 7.5e-186;
); Mismatches 311; Indels 63;
                                                                                                                                                                                                                                                                                         /clone="1110003109"
/tissue type="whole body"
/clone lib="RIKEN full-length enriched if
/dev stage="18-day embryo"
186. 1298
                                                                                                                                                                                                                                                   /db_xref="FANTOM_DB:1110003I09"
/db_xref="taxon:10090"
                                                                                                                                                                             /organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/63"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /codon_start=1
/protein_id="BAB22735.2"
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BUG16629 686 bp mRNA linear EST 23-SEP-2002
UI-H-DF0-ben-f-24-0-UI.sl NCI CGAP_DF0 Homo sapiens cDNA clone
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Tissue Procurement: Dr. Jose Mercuende
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Clone distribution information can be obtained
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1 (bases 1 to 686)
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National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
Unpublished (1997)
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The following repetitive elements were found in this CDNA
sequence: 284-304, AT rich#Low_complexity (matched compliment)
Seq primer: MI3 FORWARD
AGGTCATACCATGACCGGAAGTCAAAAGTTGACCTGGATAGGCTCAATGATGATGCCAAG
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/db_xref="taxon:9606"
/clone="ull-H-DB0-ben-f-24-0-UI"
/tissue_type="5ubchondral Bone"
/dev_stage="Adult"
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                                                                                                                    Bukaryota; Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi; Mammalia; Butheria; Rodentia, Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 1095)
Lark, A.G., Glanowski,S., Nielsön,R., Thomas,P., Kejariwal,A., Todd,M.A., Tanenbaum,D.M., Civello,D.R., Lu,F., Murphy,B., Perriera,S., Wanoy,G., Zheng,X.H., White,T.J., Sninsky,J.J., Adams,M.D. and Cargill,M.
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Pred. No. 5.7e-166;
0; Mismatches 138;
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Mus musculus
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CDNA Library preparation: Dr. M. Bento Soares, University of Iowa CDNA Library preparation: Dr. M. Bento Soares, University of Iowa CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa DNA Sequencing by: Dr. M. Bento Soares, University of Iowa from Dr. M. Bento Soares, Dento-soaresoulowa.edu

The following repetitive elements were found in this cDNA sequence: 284-304, >AT_rich#Low_complexity (matched compliment)
POLYA-Yes.
                                                 BUG16664 1inear EST 23-SEP-2002 UI-H-DF0-ben-p-22-0-UI.sl NCI CGAP_DF0 Homo sapiens cDNA clone UI-H-DF0-ben-p-22-0-UI 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 567 CATGGCAAGTAGAAAGGTATATCATCAACTTCTATACCTAAGAATATAGGATTGCATTTA 508
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(Dases 1 to 687)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index

Unpublished (1997)
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/tissue_type="Subchondral Bone"
/dev_stage="Adult"
/lab_host="DH10B (Life Technologies)"
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larity 98.5%; Pred. No. 4.2e-136;
Conservative 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Jose Mercuende
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence tag for this librar
TAG TISSUE=subchondral bone
TAG_LIB=UI-H-DF0
                                                                                                                                                                                                                                                                                                                                                                            Contact: Robert Strausberg, Ph.D.
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/db_xref="taxon:9606"
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/lab host="DH10B (Life Technologies)"
/clone_lib="NCI_CGAP_DF0"
/clone_lib="NCI_CGAP_DF0"
/note="Dogan: Bone; Vector: pT773-pac (Pharmacia) with a modified polylinker; Site 1: ECOR I; Site_2: Not I;
NCI_CGAP_DF0 is a cDNA library containing the following tissue(s): Subchondral Bone. The library was constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an ECOR I adaptor, digested with Not I, and cloned directionally into pT773-pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT)18 tail. The sequence tag for this library is GTTAAGCGTC.
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Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Steven Gitelis/ Rush Presbiterian, Dept. of
Orthoapedics
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CLONE Distribution: Clone distribution information can be obtained
from Dr. M. Bento Soares, bento-soares@ulowa.edu
The following repetitive elements were found in this CDNA
sequence: 1-24, AT rich#Low complexity 122-142,
>AT rich#Low complexity 249-325, > (TA)n#Simple_repeat
Seq primer: M13 FORWARD
POLYA=Yes.
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1 (bases 1 to 606)

1 (Catarrhini; Hominidae; Homo.

1 (bases 1 to 606)

Not. CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index

Unpublished (1997)
 GTATATAGATCAAATG---TTTTTTTGGTATATATAACCAGGTACACCAGAGCTTACAT
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                      CATGTCTTTAGAAATTTAGGAGATAAATTTTATTTTTAAATTTTGAAACACGAAACAATT
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/db_xref="taxon:9606"
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/tissue type="Chondrosarcoma Grade II"
/dev stage="Adult"
/lab_host="DH10B (Life Technologies)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAG TISSUE=grade-2-chondrosarcoma
TAG_LIB=UI-H-EZ1
TAG_SEQ=ATCTAATATG"
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Pred. No. 4.7e-130;
0; Mismatches 3;
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1349
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Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
Tissue Procurement: Gilbert Smith, Ph.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LiNL at:
http://image.llnl.gov
Plate: LLAMM9137 row: j column: 14
High quality sequence stop: 664.
Location/Qualifiers
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                  TTCATGTCTATGTGTATAGATCAAATG---TTTTTTTTGGTATATATAAACCAGGTACA
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/tissue_type="tumor, biopsy sample"
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/mol_type="mRNA"
/strain="FVB/N"
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/dev_stage="Adult"
/dev_stage="Adult"
/dev_stage="Adult"
/dev_stage="Adult"
/dev_stage="Adult"
/lab_host="DH10B (Life Technologies) (T1 phage resistant)"
/clon=lib="U1-CF-DU1"
/note="Organ: Lung; Vector: pT773-Pac (Pharmacia) with a
modified polylinker; Site_1: ECOR I; Site_2: Not I;
U1-CF-DU1 is a normalized cDNA library containing the
following tissue(8): Primary Lung Epithelial Cells The
library was constructed according to Bonaldo, Lennon and
Soares, Genome Research, 6:791-806, 1996. First strand
cDNA synthesis was primed with an oligo-dT primer
containing a Not I site. Double stranded cDNA was ligated
to an ECOR I adaptor, digested with Not I, and cloned
directionally into pT773-Pac vector. The oligonucleotide
used to prime the synthesis of first-strand cDNA contains
a library tag sequence that is located between the Not I
site and the (GT)18 tail. The sequence tag for this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2024 University of Iowa Med Labs, Iowa City, IA 52242, USA
Tel: 319 356 4866
Fax: 319 356 7171
Email: paul-mccray@uiowa.edu
Tissue Procurement: Dr. M. J. Welsh, University of Iowa
CDNA Library Preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Researchers may obtain clones from Research
Genetics (www.resgen.com) or from Open Biosystems
(www.openbiosystems.com).
The following repetitive elements were found in this cDNA
sequence: 284-304, AT Tich#Low_complexity (matched compliment)
Seq primer: M13 FORWARD
POLYA=Yes.
                                               BU685336 580 bp mRNA linear EST 07-0CT-2002
UI-CF-DU1-aav-f-05-0-UI.S2 UI-CF-DU1 Homo sapiens cDNA clone
UI-CF-DU1-aav-f-05-0-UI 3', mRNA sequence.
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                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 5810)
Bonaldo, M.F., Lennon, G. and Soares, M.B.
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TAG_LIB-UI.-CF-DU1
TAG_SEQ-GGCTGTAGGC"
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98.2%; Pred. No. 4.1e-113;
tive 0; Mismatches 4;
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Mol type="mRNA"
/db xref="texon:9606"
/clone="UI-CF-DUI-aav-f-05-0-UI"
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                                                                                                                                                    BU685336.1 GI:23539180
                                                                                                                                                                                                      Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: McCray, PB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       University of Iowa
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Best Local Similarity 98.2
Matches 553; Conservative
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Euteleostomi;

Homo sapiens (human)

Assessment of gene expression patterns in a model of colon tumor metastasis using a 19,200 element CDNA microarray Dimpublished (2000)
Contact: John Quackenbush
The Institute for Genomic Research
712 Medical Center Dr., Rockville, MD 20850, USA
Fel: 301 838 3528
Fax: 301 838 0208

Email: johnq@tigr.org Plate: 258

primer: Forward

MAGJ"

Hegde, P., Qi, R., Abernathy, K., Dharap, S., Gaspard, R., Gay, C. Holt, I.E., Saeed, A.I., Sharov, V., Lee, N.H., Yeatman, T.J. and Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butele Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 560)

Quackenbush, J.

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ORGANISM
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/dev_stage="3 months, virgin"
/lab host="DHIOB"
/clome lib="NUI CGAP Maml"
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
Site 2: Not1; Cloned unidirectionally. Primer: Oligo dT.
Library constructed by Life Technologies. Investigator
providing samples: Gilbert Smith, NIH"
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                                                                                                       Score 523.6; DB 2; Length 799;
Pred. No. 7.6e-113;
0; Mismatches 124; Indels 6
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83.0%;
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Location/Qualifiers
1. .560
/organism="Homo sapiens"
/mol_type="mRNA"
/mol_type="mRNA"
/db_xref="texno:9606"
/clone_lib="wAGE_resequences, MAGE_resequences, MAGE_resequences,
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Matches 53
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AW968905 560 bp mRNA linear EST 01-JUN-2000 EST380981 MAGE resequences, MAGJ Homo sapiens CDNA, mRNA sequence. AW968905 48W968905.1 GI:8158746 EST.

RESULT 11
AW968905
LOCUS
DEFINITION
ACCESSION
VERSION
, KEYWORDS

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BU359805 819 bp mRNA linear EST 28-NOV-2002
603477657F1 CSEQCHN71 Gallus gallus cDNA clone ChEST363b15 5', mRNA
                                                                 641
                                                                                                                                                                                                                                                                                                                                                                                                                      Gallus gallus (chicken)
Gallus gallus
Gallus gallus
Gallus gallus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianiae;
Phasianinae; Gallus.
Plasianinae; Gallus.
I (bases 1 to 819)
Boardman, P.E., Sanz-Ezquerro, J., Overton, I.M., Burt, D.W., Bosch, E. Fong, W.T., Tickle, C., Brown, W.R.A., Wilson, S.A. and Hubbard, S.J. A Comprehensive Collection of Chicken cDNAs
Curr. Biol. 12 (22), 1965-1969 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                      rerecreaseracreaarecassacrearsseaasaasarerreaaarararararerssa
                                                                                            91 CTGACATGGCGGCTTCACTCTCAGGAGAATACACGGATACAGCTAGTGTTTGACAATCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Department of Biomolecular Sciences
University of Manchester Institute of Science and Technology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Gallus gallus"
/mol type="mRNA"
/strain="White Leghorn, Hisex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PO Box 88, Manchester, M60 1QD, UK
Tel: 01612008930
Fax: 01612360409
Email: Simon. Hubbard@umist.ac.uk.
Location/Qualifiers
                                                                                                                                                    GCTCAATGATGATGCCAAGCGTTACAGT 669
                                                                                                                                                                                             481 GCTCAATGATGATGCCAAGCGTTACAGT 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:9031"
/clone="ChEST363b15"
                                                                                                                                                                                                                                                                                                                                                                         BU359805
BU359805.1 GI:25867806
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Contact: Simon Hubbard
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                                                                                                                                                                                                                                                                                                                                                  sequence.
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Best Local S:
Matches 617,
                        361
                                                                   582
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VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                            RESULT 13
BU359805
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AUTHORS
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JOURNAL
MEDLINE
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COMMENT
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             508 bp mRNA linear EST 04-SEP-2003
DKF2p313A2132 rl 313 (synonym: hlcc2) Homo sapiens cDNA clone
AL600063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                   Ingolstaedter Landstr.1, D-85764 Neuherberg, Germany This is the 5' sequence of the clone insert Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Research Center (DKFZ); Email 8. wiemann@dkfz- heidelberg.de; sequenced by GBF (National Research Centre for Biotechnology Ltd., Braunschweig/Germany) within the cDNA sequencing consortium of the German Genome Project.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 CAGTACCATTGTTAGAGGACGATGGTGGACACAAGGAAGTTCCTCCAAGGATAAAATC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       162 GGAAGCAGAAAATGATATCTGTAGGTATGATTTTGTGGAAGTTGAAGATATATCCGAAAC 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGGAATCTGTCACAAGCTCTATTTCAGGGGTATCCTATAACTCTCCATCAGTAACGGA 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 CTGGGAATCTGTCACTAGCTCTATTTCAGGGGTATCCTATAACTCTCCATCAGTAACGGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCCACTCTGATTGCGGATGCTCTGGACAAAAAATTTGCAGAATTTGATACAGTGGAAGA 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           222 CAGTACCATTATTAGAGGACGATGGTGTGGACACAAGGAAGTTCCTCCAAGGATAAAATC 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      342 ATTCAAGATTTATTATTCTTTGCTGGAAGATTTCCAACCCGCAGCAGCTTCAGAGACCAA 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     522 TCTGCTCAAGTACTTCAATCCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGA 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GGAAGCAAAAATGATATCTGTAGGTATGATTTTTGTGGAAGTTGAAGATATATCCGAAAC 60
                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/dover="DKE2913A2132"
/dev_stage="adult"
/lab_host="DH10B"
/clone_lib="313 (synonym: hlcc2)"
/note="vector: pTriplEx2; Site_1: SfiIA; Site_2: SfiIB;
cDNA-collection"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTCAAGATTTATTATTCTTTGCTGGAAGATTTCCAACCCGCAGCGCTTCAGAGACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No sl sequence available.

This clone (DKEZp313A2132) is available at the RZPD in Berlin. Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 1405
Berlin-Charlottenburg, GRRMANY; Email: clone@rzpd.de.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                              (Bloecker, H., Boecher, M., Brandt, P., Mewes, H.W., Weil, B.
                                                                                                                                                                                                                                                        1 (bases 1 to 508)
Bloecker H., Boecher, M., Brandt, P., Mewes, W., Weil, B. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 26.0%; Score 503.2; DB 1; Length 508; Best Local Similarity 99.4%; Pred. No. 4.6e-108; Matches 505; Conservative 0; Mismatches 3; Indels 0
                                                                                                                              AL600063.1 GI:15163351
                                                                                                                                                                       Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                  Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                             Contact: MIPS
                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                    Wiemann, S.)
                                                                                                                                                                                                                                                                                                       Wiemann,S.
EST (Bloec
                                                                                                                                                                                                                                                                                                                                                                                                                    MIPS
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                                                                                                                              VERSION
KEYWORDS
SOURCE
ORGANISM
                                                               DEFINITION
RESULT 12
AL600063
                                                                                                          ACCESSION
                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                   AUTHORS
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/clone lib="NCI_CGAP_Mam6"
/note="Organ: mammary; Vector: pCNV-SPORT6; Site 1: Sal1;
Site_2: Not1; Cloned unidirectionally. Primer: Öligo dT.
Library constructed by Life Technologies. Investigator
providing samples: Jeffrey Green, M.D., NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGGAAGATCTACTTAAGCACTTCAATCCAGTGTCTTGGCAAGATGATCTGGAGAATTT 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              640
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAGACCAACTGGGAATCAGTCACAAGCTCTTTCTCTGGGGTGTCCTATCACTCTCCATC 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGACCAACTGGGAATCTGTCACAAGCTCTATTTCAGGGGTATCCTATAACTCTCCATC 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         513 AGTGGAAGATCTGCTCAAGTACTTCAATCCAGAGTCATGGCAAGAAGATCTTGAGATAT 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    520
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 GGACTAGAGGAAGCAGAAAATGACATTTGTAGGTATGACTTTGTGGAAGTTGAAGAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCGAAACCAGTACCATTATTAGAGG-ACGATGGTGTGGACACAAGGAAGTTCCTCCAAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101 TCAGAGAGCAGCACTGTTGTCAGAGGAACGATGGTGTGGCCACAAGGAGATCCCTCCAAG
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                                                                                                                                                                                                                 /mol_type="mRNA"
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/db_xxef="txxxon:10090"
/clone="IMAGE:5346438"
/sex="female, virgin"
/tissue_type="infiltrating ductal carcinoma"
      at:
found through the I.M.A.G.E. Consortium/LLNL
                          http://image.llnl.gov
Plate: LLAMI880 row: f column: 07
High quality sequence stop: 692.
Location/Qualifiers
                                                                                                                                                                                       organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                               dev_stage="5 months"
/lab_host="DH108"
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                                                                                                                                                            1. .723
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                       TTTGGATTAGAGGAAGCAGAAAATGATATCTGTAGGTATGATTTTGTGGAAGTTGAAGAT
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Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey Green M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
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| Incheston | 
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Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.
Emmert-Buck, M.D., Ph.D.
CDNA Library Preparation: M. Bento Soares, Ph.D.
CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-GGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
Seq primer: -40UP from Gibco
High quality sequence stoop; 475.
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                                                                    AW274723 505 bp mRNA linear EST 03-JAN-2000
xn34b02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2695563 3',
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I (bases 1 to 505)
NCI-CAAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
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/db_xref="taxon:9606"
/clone="IMAGE:2695563"
/lab_host="DH10B"
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